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BUSINESS WEEK



Henderson, Price-Freezer

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America's problem isn't more machines as much as more from the machines you have

Four ways we can help you

The machine tool industry has tripled its output—hundreds of new airplane, tank and gun plants have thousands of new tools. But machine tools can't win a war—only the *weapons men make on them* can do that.

Because of our long experience with industry, perhaps we can help you so increase output of the tools you have that you will reach your production goal without needing more machines. Here are four ideas—

1 —Operator's Manual. Practical handbook for turret lathe operators. How to get the most out of any turret lathe, and keep downtime at minimum.

2 —Lectures for machinists—ideas on cutter grinding, care of tools, etc., in a short lecture course we supply without charge.

3 —The entire Warner & Swasey field force is now a service force, to bring to you all the combined experience, all short cuts, pro-

duction planning, tool arrangements and all other ideas this entire group of practical engineers has learned over many years. At the free disposal of any war plant.

4 —New tools to increase production of your present turret lathes have been designed by Warner & Swasey engineers who will help you get the most from them.

There is a Warner & Swasey man near you. If you're in war work and he can help you speed it, call him.

YOU CAN TURN IT BETTER, FASTER, FOR LESS . . . WITH A WARNER & SWASEY



**WARNER
&
SWASEY**
Turret Lathes
Cleveland

WASHINGTON BULLETIN

WHAT THE WASHINGTON NEWS MEANS TO MANAGEMENT

A Question of Buck-Passing

Behind the chilly response of Congress to the President's anti-inflation message is the feeling that its motives are all ulterior. Legislators who find in the seven-point program nothing they can get their teeth into are convinced that the President's actual purposes are to shift to Congress the blame for inflation when it comes and once more to stave off statutory action on labor—in which he is already highly successful.

Congressional suspicions that the program was not what it seemed were strengthened when the fireside chat failed to attempt any mustering of popular pressure on the legislators, emphasized instead an appeal for more or less voluntary sacrifices.

Parity Proposal Is Blocked

Of the two concrete proposals in Roosevelt's message, one—the \$25,000 limit on income—is seen as good politics and good showmanship but as having little to do with inflation. As for his other proposal—hacking down farm price ceilings to parity—it is assumed that Roosevelt knew it would get nowhere, especially unless it were coupled with some restraint on labor's take. The farm bloc is standing firm for bonuses over parity. And even Administration wheel-horses who might be inclined to sponsor the recommended legislation are held back by the clear realization that any bill would be swamped under amendments on the 40-hour week and the closed shop.

Profits Control a Puzzle

Ways and means committeemen are bewildered by the vague excess-profits proposal. While clear enough on the eye-catching feature of taking 100% of the excess, it left untouched the question of what is an acceptable rate of profit and the even more crucial question of the base on which the profit should be figured.

• **The Net of It All**—Congress feels that it has simply been told to lay off wage control and forced savings and has not been presented with any bigger tax bogey than that the Treasury originally laid down.

Deeper Cut in Steel Use

WPB's general steel conservation order, due shortly, will bring production of about 400 items of civilian use to a full stop three months hence. The order

will take effect progressively: No more deliveries of iron and steel for the banned articles after a 15-day period; no more processing after a 45-day period during which the amount processed is limited to 75% by weight of the 1941 monthly average; no assembly of prohibited items after a period of 90 days. The order bans a vast range of articles from compacts to stadiums and provides, in addition, that no iron and steel shall be used in other products to the extent that the use of substitutes is practicable.

Perkins Plagues McNutt

Even Paul McNutt's best friends are afraid he's headed for trouble and lots of it. F. D. R.'s order setting up the Manpower Commission seemingly delegated to McNutt absolute authority over the commission. But the President can give and he can take away. McNutt was ready to announce membership on his advisory commission when the President told him that he'd appoint the members.

Secretary Perkins, a member of the commission, has started to needle McNutt already. McNutt originally planned to name as the commission's executive director Gen. Frank J. McSherry, in charge of labor supply and training in WPB's Labor Division, Miss Perkins personally protested to the President against the proposed appointment of McSherry because John L. Lewis frowns on the Army man.

• **Compromise Plan**—McNutt then devised a divided authority plan which he hopes will appease all factions but will probably get him into more trouble. He is trying to hire John Steelman, director of Labor Department's Conciliation Service, as his executive director and put in McSherry as "chief of operations." Steelman is on friendly terms with Lewis as he was instrumental in getting him the closed shop in the captive coal mines. Miss Perkins wants to retain Steelman. Steelman himself prefers to stay where he is but will go if "drafted."

And Anna Irks Sidney

None of Sidney Hillman's close friends expect him to take the new job offered him by the President as his special labor adviser at \$10,000 a year (BW—Apr. 25 '42, p. 76).

The story told by Hillman followers is that Roosevelt called up the labor leader to tell him that he had decided to appoint McNutt manpower czar and

that he wanted Hillman to be his labor adviser. The President asked if he would accept.

"No, thank you, Mr. President," Hillman is reported to have answered—"You know I couldn't replace Anna Rosenberg."

Anna Rosenberg, New York regional director of the Social Security Board, was a member of the President's committee which recommended McNutt's appointment and she is a member of the C.I.O.-A.F.L. joint committee that meets with the President.

Patent Probe Broadens

The Senate Patent Committee investigation is getting to the real meat of its subject—moving from abuses of the patent system to alleged weaknesses of the system itself. This was the point of Thurman Arnold's testimony on the Dzus Fastener. He emphasized that there was nothing illegal in any delay in aircraft production by refusal of Dzus to license production of his little screw. He thought there ought to be.

Similarly, Arnold says that failure of the patent law effectively to require full disclosure of the patented process leaves him unable to get the "know-how" on magnesium out of Alcoa and Dow, even after a consent decree providing for licensing of the patents—and that the law is the real culprit.

• **Teeth Gone**—Arnold also said that the magnesium consent decree illustrates how companies under indictment insist on easy terms now they know he can't prosecute because of the wartime truce on antitrust actions.

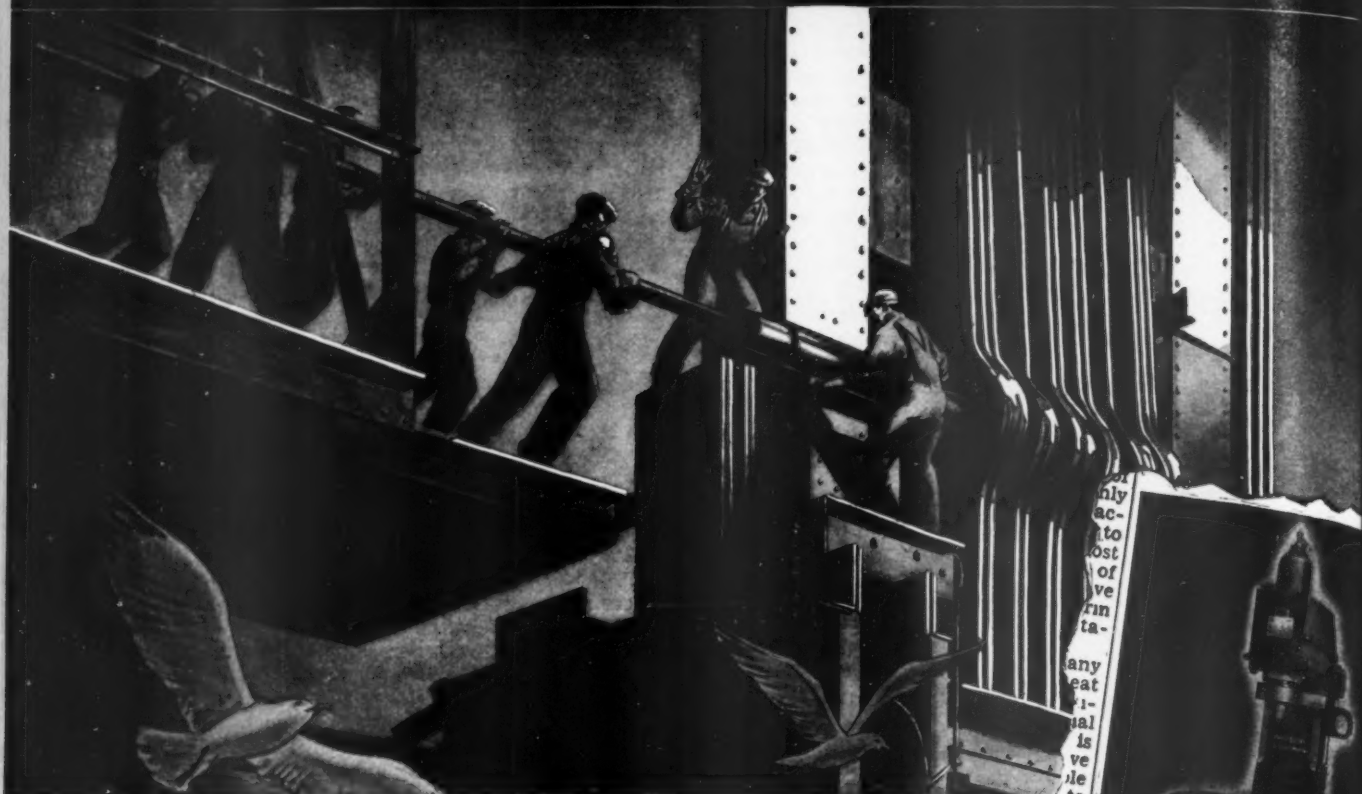
Bailing Out Dealers

Legislative heat to thaw out the auto dealers' frozen assets has been generated by both Houses of Congress (BW—Apr. 25 '42, p. 50). Their bill now awaits presidential signature. Sponsored by Senator Murray and Rep. Wright Patman, it would authorize the RFC to buy or loan money on rationed commodities. Up to July 1, 1943, such loans or sales would be on the basis of wholesale prices, plus transportation, storage, and expenses. After that, the "fair retail price" embodied in OPA's Motor Vehicle Price Schedule No. 85 (plus allowances for transportation, handling, storage, and excise taxes) will be used in place of the wholesale price. If the commodity is resold by the RFC within 19 months after rationing, it must be sold back to a dealer in that line.

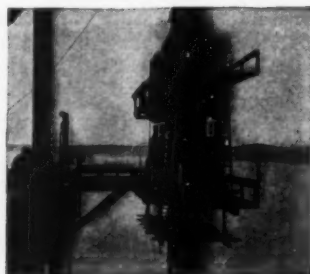
Expectations are that the auto deal-

HOW TO MANHANDLE 5000 TONS OF BRIDGE

Thursday, September 20, 1917—It's nearly 4 o'clock. Workmen ram home a giant steel pin, and one of the greatest engineering feats of all time is accomplished.



Thus, after seventeen years of planning and building, after two tragic failures, the famous Quebec Bridge was completed—six tenths of a mile from end to end—with the longest and heaviest single span ever built!



Outstanding feature of the erection job was the hoisting into place of the suspended span—weight, 5000 tons—lifted bodily off pontoons, 150 feet into the air by eight W-S Hydraulic Jacks, each working at a pressure of 4000 lbs. per sq. inch.



Fed by W-S Hydraulic Pumps, controlled by a system of valves, these jacks lifted the great span two feet at a time—evenly—accurately—until, on the fourth day after it was lifted from its pontoons, the span was hung in place.

Once again, W-S engineering skill had produced hydraulic equipment that helped make engineering history. Right now, W-S Hydraulic Machinery, saving precious time and money in the front ranks of Production for Victory, is making more engineering history. (See column at right.) Plant is expanding, new machinery is going in, staff is increasing, and tomorrow W-S products will make still more history—perhaps for your firm. Why not acquaint us now with your plans for tomorrow? The Watson-Stillman Co., Roselle, N. J.

WATSON-STILLMAN

Engineers and Manufacturers of Hydraulic Machinery and Equipment—Hydraulic Presses, Pumps and Jacks, Forged Steel Valves and Fittings

W-S PRESS HELPS MACHINE GUNNER SHOOT STRAIGHT

At many a "somewhere in the U. S. A.", Watson-Stillman Straightening Presses are putting the finishing touches on machine gun barrels—more quickly, more accurately than ever before.

Meanwhile, scores of other plants are finding new uses for these versatile presses—straightening all structural. For these units are available in many capacities—with and without movable work tables—equipped or not equipped with centers, rollers and other accessories. But, whatever the adaptation, all are conspicuous for their high speed operation, extremely sensitive control, and design refinements that only W-S hydraulic engineering experience and skill can provide.

Maybe this press or other W-S Presses like or unlike it can solve some of your problems. Bulletin 110-A, a condensed catalog, will answer that question. Secure it now.

WASHINGTON BULLETIN (Continued)

ers—who will benefit most by the law—will rather sell to the RFC than take loans. But if they decide to go into hock, the rate of interest presumably would be the RFC's customary 4% per annum.

• **More Help**—Pending are two other forms of relief—a bill declaring a moratorium on debts and a proposal to have RFC bail out second-hand items.

Bearing Down on Wheat

Secretary of Agriculture Claude Wickard moved into Enid, Okla., shortly ahead of the farm referendum on wheat quotas for this year and let loose a flood of bearish talk on the wheat outlook. The gloom, designed to drum up a good vote of approval on quotas, was high-pointed by the warning that since export business was out for the duration and since exports after the war are apt to be small and low-priced, wheat acreage in this country might have to come down to 40 million acres for flour. Additional acres would be limited to wheat for feed and industrial use and the wheat sold at prices below the market—first intimations of a possible two-price system to handle wheat.

Based on normal percentages of a crop going into flour mills, Wickard probably was figuring a new low of about 50 million acres for the whole crop, compared with this season's 55 million. To support the suggestion of sharp shrinkage in future production, he pointed to this year's huge overabundance and the insuperable storage problem. Farmers, it is plain, will have to store millions of bushels, in buildings preferably, on the ground if necessary.

Gillette Goes Prospecting

Intent on claiming a new industry or two for the farm belt, Senator Gillette's agriculture subcommittee is on the offensive. Gillette figures that if grain can be used to make alcohol and alcohol can be used to make synthetic rubber, the alcohol and rubber plants should be built where the grain grows, thus eliminating a lot of freighting around the country.

Gillette is banking on the fact that the bulk of the synthetic-rubber program—now upped from 700,000 to 800,000 tons—is still on paper and, even at that figure, holds out no hope of rubber for civilian use.

• **Rough Going**—By sheer persistence Gillette may capture some productive capacity but he's running into heavy resistance from WPB, RFC, the Oil Coordinator's office, and the chemical, oil, and tire companies which have a stake in the present program.

Little Pink Pills Need Sugar

There isn't enough sugar-coating on the rationing pill to suit the drug industry, nor enough icing on the cake to suit the bakers. Both will put up a stiff fight for a boost in the 70%-of-1941 quota.

This is the same for all industrial users, except canners and packers, but drug men claim their product ought to rate higher than candy and soft drinks, particularly since their consumption is small. Druggists are button-holing their friends on Capitol Hill.

Altering the Otter

New developments in the mass production of Sea Otters (BW—Sep. 27 '41, p17)—small cargo ships which seemed

likely to become a "casualty" of the war—are promised within the next two weeks.

These 250- to 300-footers, christened "little stinkers," "flaming coffins," etc., are being dug from under the obloquy heaped upon them and will be redesigned by a newly organized corporation. Originally conceived to form a one-way "bridge of ships" to England, where they would be scrapped upon arrival, the Otters have been damned by the Navy and the Maritime Commission as cranky, unseaworthy, and generally impractical.

Conventionalization of the radical design, in which propellers were installed amidships and propulsion furnished by 16 six-cylinder Chrysler gasoline motors, is promised. The Otters will be renamed, and it is planned to

Nelson Gets an A.F.L.-C.I.O. Man

Donald Nelson got a new deputy this week—Wendell Lund, who will serve as chief of WPB's Labor Division. Lund was picked by neither Nelson nor the President. He was selected by the A.F.L. and the C.I.O.—and endorsed by the Michigan Manufacturers Assn.—for the top position in current government labor affairs.

Lund was the C.I.O.'s second choice for the job vacated by Sidney Hillman (largely because Hillman and the labor chiefs didn't get along). The C.I.O. wanted Walter Reuther, the Auto Workers Union's dynamic planner, but the A.F.L. thought Reuther might be too C.I.O.-minded. Roosevelt had agreed to appoint the man agreed upon by the two labor groups. The A.F.L. had no candidate of its own and so, when Lund was suggested, reviewed his record and found him acceptable.

"Curly" Lund is 36 years old. WPB will be his eighth employer in nine years. He has been executive secretary of Augustana College, secretary of the finance committee of the Assembly of American Colleges and Universities, secretary of the Upper Monongahela Valley Commission, director of the Taylor Grazing Commission, chief of the Division of Reallocation of the FSA, secretary of the Michigan State Administrative Board, and, for the last seven months, director of the Michigan State Unemployment Commission. In his last job, Lund endeared himself to organized labor by being an outspoken critic of merit rating. The



way he handled controversial compensation claims earned him the respect of Michigan manufacturers.

In WPB, Lund's chores will differ from his predecessor's. There will be less industrial relations work, less morale building. These functions, as well as those calculated to speed labor training and break labor supply bottlenecks, are now performed by other agencies. Principally, Lund will be concerned with operating problems and production methods. He will be striving to capitalize on all the suggestions for increasing production which come out of the joint labor-management committees set up under the War Production Drive.

Light Weight



Willson Respirators and Industrial Goggles are light in weight, combining adequate protection with greatest possible comfort for your workmen.



There is a Willson personal protective device for almost every conceivable industrial hazard. Call in your local Willson Safety Service Representative or write direct.

GOGGLES • RESPIRATORS • GAS MASKS • HELMETS

WILSON
DOUBLE
PRODUCTS INCORPORATED
READING, PA. U.S.A.

WASHINGTON BULLETIN (Continued)

use gasoline engines only in those which will carry dry cargo, not oil.

• **Possible Uses**—The ships are being talked of as possible oil carriers (with capacity of from 30,000 to 35,000 bbl.) for Lake Maracaibo; for use in the inland waterways of this country, and for cargo vessels on the Australian route.

WPB Wins Over FPC

The Federal Power Commission has agreed to get out of the hair of WPB's Power Branch in matters pertaining to war power supply, expansion, and rationing. That's really the effect of the formal "treaty" signed by Nelson and FPC Chairman Olds which came out of the White House this week with Roosevelt's blessing. It should end a confusing criss-crossing of purposes between WPB's Power Branch and FPC's Defense Power Staff which has kept utilities trying to satisfy two masters.

The agreement is formal recognition by FPC of what has been a practical fact—that its authority to dabble in the war effort long ago became obsolete by delegation of greater powers to Nelson.

The significance of this deal from the political standpoint is Roosevelt's acceptance of a document which demotes a pet New Deal "reform" agency in favor of the Nelson war agency—particularly in the field of electric energy.

For Cheaper Housing

Speculative builders may be squeezed out of the war housing program if WPB's requirements committee cuts very deeply into the materials available. As recently as March, the committee O.K.'d materials for 300,000 houses, 200,000 of them to be privately-financed. Developing material stringencies, however, have forced reconsideration, and the matter is now being threshed out before the committee.

If the allocation is cut much, houses for war workers will have to be made very simple—practically on the kerosene-lantern and outdoor-privy standard. Private money wouldn't be interested.

• **Last Straw**—By next fall labor shortages also are expected to cut into housing for war workers.

Aid for Broadcasters

The Defense Communications Board is coming forward with a plan to pool all broadcasting equipment, especially tubes. Chief concern of the men of the air is the problem of staying there. Some stations have neat stocks of hard-to-get gadgets, while others tremble lest

a tube that has seen its best days suddenly emit its last squeak and paralyze a roomful of costly equipment. With the war machine gobbling up tubes far faster than the plants can ever make them, a government-run pool might provide absolutely necessary replacements for stations.

Capital Gains (and Losses)

Companies which gained exemption from the 40-hour week clause of the wage-hour law by working out an annual wage agreement with their unions will be entitled to the same exemption from the Walsh-Healey Act as soon as the President signs an amendment which passed Congress this week.

More space in the Merchandise Mart, Chicago, rather than outright purchase of the huge structure is part of the government's latest decentralization plan. Federal bureaus already occupy 10% of the building's space (BW—Mar. 28'42,p8); the government is taking about 12% additional for divisions of Treasury and Interior.

President Roosevelt searched hard for a name for the war, finally came up with "War of Survival." But in his message to Congress, without any soul-searching, he pulled a natural, "The People's War."

Grapevine now reports that Joseph B. Kennedy, first head of the Maritime Commission, will be appointed an adviser to the agency.

Exclusion of professional services from the over-all price ceiling (page 14) is expected to revive the aspirations of many commercial enterprises and services to professional status: druggists, for example, who fill prescriptions. Curbstone opinion in OPA this week was that druggists are subject to the maximum price ceiling as rendering a service in connection with the processing of a commodity.

Within three months WPB's new machinery for power rationing anywhere in the nation, machinery created by Order L-94, issued May 1 (BW—Apr.24'42,p14), will be applied, all or in part, in at least three areas. Upstate New York, eastern Iowa, the south central states, and Pittsburgh are best bets.

Late cancellations on Pullman accommodations aren't going to entitle space-holders to refunds any longer if the Interstate Commerce Commission approves a policy of no refunds for those who release accommodations too late for resale. This cost the company \$244,800 on 33,000 passengers last year.

—Business Week's
Washington Bureau

FIGURES OF THE WEEK

	% Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
THE INDEX (see chart below)	*178.8	†179.6	178.2	161.0	145.8
PRODUCTION					
Steel Ingot Operations (% of capacity)	98.9	97.6	98.8	99.9	94.3
Automobile Production	21,900	21,720	28,915	91,855	108,165
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)	\$32,982	\$29,851	\$28,801	\$12,810	\$18,000
Electric Power Output (million kilowatt-hours)	3,299	3,308	3,346	3,341	2,950
Crude Oil (daily average, 1,000 bbls.)	3,581	3,545	3,820	4,099	3,727
Bituminous Coal (daily average, 1,000 tons)	1,900	†1,879	1,825	1,825	213
TRADE					
Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars)	85	83	87	94	84
All Other Carloadings (daily average, 1,000 cars)	56	53	46	59	34
Check Payments (outside N. Y. City, millions)	\$6,285	\$6,091	\$6,290	\$7,024	\$5,405
Money in Circulation (Wednesday series, millions)	\$11,642	\$11,624	\$11,462	\$10,278	\$8,992
Department Store Sales (change from same week of preceding year)	+15%	-12%	+26%	+6%	+18%
Business Failures (Dun & Bradstreet, number)	233	224	268	178	272
PRICES (Average for the week)					
Spot Commodity Index (Moody's, Dec. 31, 1931 = 100)	231.3	231.6	231.8	208.3	185.6
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100) . .	153.6	153.9	154.8	144.7	134.2
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100) . .	184.8	†185.2	183.8	156.5	134.8
Finished Steel Composite (Steel, ton)	\$56.73	\$56.73	\$56.73	\$56.73	\$56.73
Scrap Steel Composite (Iron Age, ton)	\$19.17	\$19.17	\$19.17	\$19.17	\$19.17
Copper (electrolytic, Connecticut Valley, lb.)	12.000¢	12.000¢	12.000¢	12.000¢	12.038¢
Wheat (No. 2, hard winter, Kansas City, bu.)	\$1.13	\$1.14	\$1.19	\$1.13	\$0.86
Sugar (raw, delivered New York, lb.)	3.74¢	3.74¢	3.74¢	3.50¢	3.32¢
Cotton (middling, ten designated markets, lb.)	20.05¢	20.26¢	20.20¢	16.24¢	11.09¢
Wool Tops (New York, lb.)	\$1.263	†\$1.291	\$1.333	\$1.292	\$1.255
Rubber (ribbed smoked sheets, New York, lb.)	22.50¢	22.50¢	22.50¢	22.50¢	23.16¢
FINANCE					
90 Stocks, Price Index (Standard & Poor's Corp.)	60.0	61.8	64.0	77.2	74.7
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's)	4.27%	4.26%	4.27%	4.28%	4.33%
U. S. Bond Yield (average of all taxable issues due or callable after twelve years) . .	2.35%	2.33%	2.33%	2.23%	#
U. S. Treasury 3-to-5 year Note Yield (taxable)	1.00%	0.97%	0.93%	0.73%	0.77%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average)	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate)	‡%	‡%	‡%	‡%	‡-‡%
BANKING (Millions of dollars)					
Demand Deposits Adjusted, reporting member banks	25,145	24,725	24,574	24,382	23,762
Total Loans and Investments, reporting member banks	31,393	31,502	30,781	29,618	27,546
Commercial and Agricultural Loans, reporting member banks	6,874	6,948	7,008	6,556	5,509
Securities Loans, reporting member banks	833	846	815	968	906
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks . .	16,435	16,446	15,644	14,653	13,911
Other Securities Held, reporting member banks	3,716	3,724	3,735	3,753	3,804
Excess Reserves, all member banks (Wednesday series)	2,750	2,890	2,847	4,655	5,760
Total Federal Reserve Credit Outstanding (Wednesday series)	2,400	2,415	2,326	2,291	2,239

Preliminary, week ended April 25th.

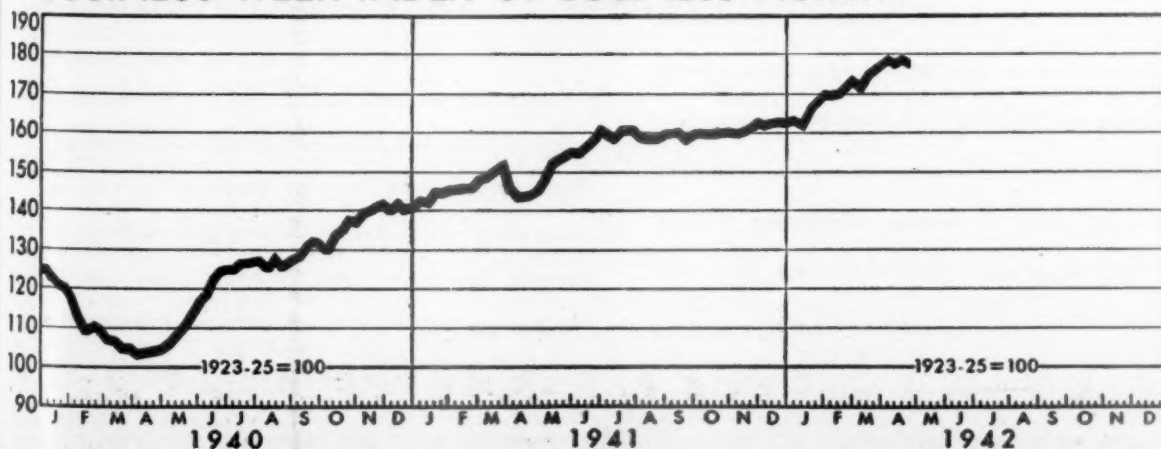
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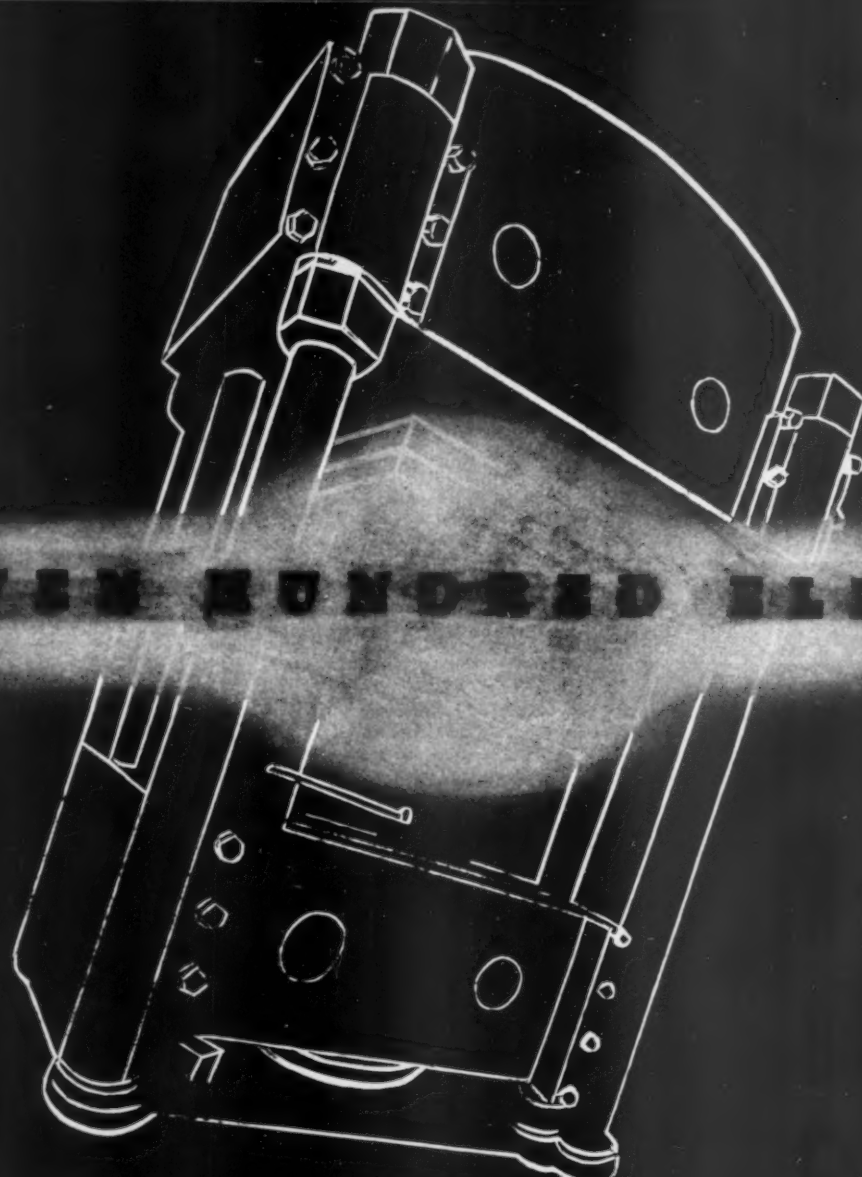
† Revised.

‡ Date for "Latest Week" on each series on request.

‡ Ceiling fixed by government.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY





ELEVEN HUNDRED ELEVEN

IN TERMS of presses to produce plastics parts, 1111 is a very impressive figure. As a matter of fact, it represents the largest and most varied battery of machines of this kind in the country.

The products of these machines have always been interesting, frequently fascinating. Today they are important—yes, vital—for they are products of war, instruments of victory.

In the five plants of the General Electric Plastics Department, these 1111 units are tirelessly pressing out molded and laminated plastics parts of practically all sizes and shapes. For battleships, tanks, tractors, and hundreds of other weapons of offense and defense, they are manufacturing parts with an unprecedented speed and with customary General Electric quality. Perhaps they offer a logical source for your plastics requirements.

P L A S T I C S D E P A R T M E N T
GENERAL  ELECTRIC

THE OUTLOOK

Freeze Will Mean Squeeze

Profit margins will be cut as price system goes out of the window. Trial-and-error period is ahead for OPA and business men. WPB adopts new plant policy to speed war production.

Business entered a new era this week. When Leon Henderson formally announced price ceilings on a multitude of goods, services, and rents (page 14), an economic revolution took place. The price system gave way to government regulation of production (through WPB) and distribution (through OPA).

No longer can prices respond to the play of supply and demand. They are fixed—at the highest levels of March—effective for retailers on May 18, and for manufacturers and wholesalers on May 11.

Orders Canceled

The immediate effect of the "freeze" was to bring business men to a sudden stop, for breathcatching and stocktaking. It was like the bank holiday, back in March, 1933, when people wondered what life would be like without checking accounts. This week, business men wondered how they could carry on without a flexible price system.

Retailers, particularly, were disturbed. This was reflected in civilian goods markets. Both manufacturers and wholesalers received cancellations or holdups on orders; home offices wired department store buyers to defer commitments.

Retail Squeeze

The reason is fairly clear. Since September, 1939, retail prices have lagged behind manufacturers' and wholesalers' quotations. This is customary. Merchandisers habitually price-mark goods for current sale on the basis of previously-purchased inventories. And gradually retail prices make up any lag. But now, with all prices simultaneously frozen, retailers are squeezed.

They must replace merchandise at March prices, but they will be selling them at prices arrived at several months before on the basis of low-cost inventories (BW-Apr. 11 '42, p13). Hence they won't collect their normal markups. In Canada, in many cases of this type, the administration has "rolled back" wholesalers' and manufacturers' prices. OPA, however, has indicated that it will use the "roll-back" very sparingly.

Manufacturers and wholesalers also will be squeezed. Since March, wage

rates have gone up; overtime has increased; and raw materials quotations have advanced. But those increased operating costs will have to be absorbed, instead of passed on. Thus the effect of the Henderson order is to cut back prices all along the line and reduce profit margins.

Like NRA Days

But the imposition of price ceilings is just the beginning of business troubles. Not only will profits be foreshortened, but a vast system of checking, inspecting, and policing of price structures will have to be devised; grades and standards established; methods of figuring markups on new merchandise worked out (BW-Apr. 11 '42, p88). Indeed, business men can be certain that OPA regulations will be issued, canceled and reissued. It will be NRA days all over again.

All this is understandable. Ours is a

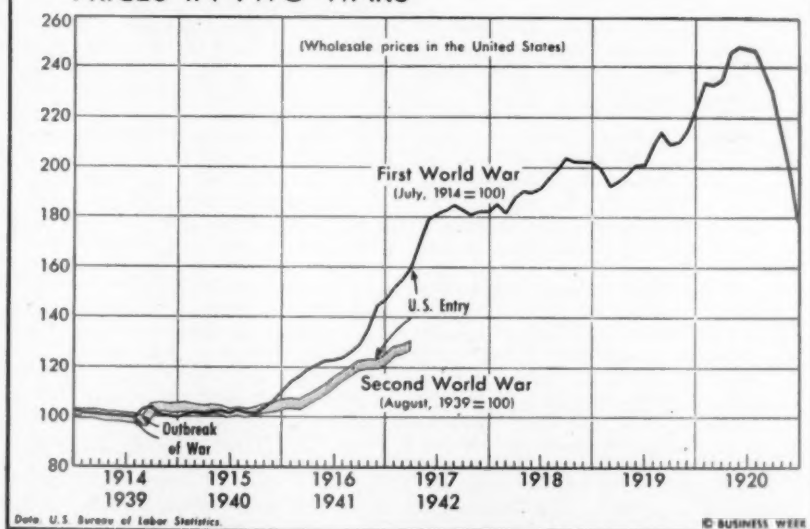
huge job (page 84). And Mr. Henderson and his aides will have to learn from their own—not some other country's experience. Techniques will have to be developed by trial and error, very much as the War Production Board learned that the way to control critical materials was to allocate them, not issue priorities. Moreover, on top of price control, sugar rationing starts this week. If it goes over fairly well, business men can conclude that other scarce consumer goods soon will be rationed.

Commercial Loans Drop

Meanwhile, this week WPB took a significant step. Hereafter, war-plant contracts will be confined, so far as possible, to facilities producing basic raw materials—steel, copper, aluminum, magnesium, etc.—on the theory that such materials are becoming the critical bottleneck in war expansion. Conversion will be depended on for expanding fabricating capacity.

And here's an interesting fact. For the last six weeks commercial loans have been declining. This signalizes a change in trend. What's happened is this: Retailers—especially dealers in durable consumers' goods—have not been able to replace stocks. So they've been paying off debts—liquidating.

IN THE OUTLOOK: PRICES IN TWO WARS



Here is an actual lesson in inflation. During the last war, price control was not adopted in the United States until mid-1917, and then the regulation was piecemeal. Result: Prices advanced sharply, ultimately collapsing

in 1920. In this war, the government has been more forehanded. A year ago, the Administration imposed ceilings on such key commodities as copper, steel, etc. Result: Prices have not risen as fast as last time.

The Price Freeze—What It Is and How It Works

The General Maximum Price Regulation, issued by the Office of Price Administration this week, is the Administration's principal weapon in the fight against inflation. In a single order Price Administrator Henderson set a ceiling on the prices of nearly all goods and services. Coupled with orders paving the way for federal control of rents in designated "Defense Areas" in 46 states, it is an attempt to freeze the cost of living as of last month.

Beginning May 18, retail prices must not exceed the highest levels charged by the individual seller during March.

Beginning May 11, manufacturer and wholesale prices and prices for wholesale and industrial services must not exceed the highest March levels charged by the individual producer, processor, distributor, or service-purveyor.

Beginning July 1, retail prices for services in connection with a commodity must not be higher than those charged during March.

Effective immediately, all retailers, wholesalers, manufacturers, and sellers of services must preserve existing records of sales made during March in order to apply the maximum prices permitted when the ceiling goes into effect.

On and after May 18, every retail store must publicly display the ceiling prices for selected "cost of living" commodities—about 100 products and groups of products—and after July 1, the retailer must have a prepared statement of the highest prices for all commodities or services which he delivered or supplied during March. This may be examined by anyone upon request.

Licensing Is Automatic

Licensing of all retailers and wholesalers is automatically effective as of the date the ceiling applies to their articles or services. A nationwide registration of every retail and wholesale outlet will be undertaken in the near future. Each store or business establishment will be required to register separately on forms issued by OPA. No limitation is imposed by this regulation on the opening of new outlets. Application of such control is under consideration but for the time being every new store automatically receives a license and takes its maximum prices from the nearest store of the same general type or class.

Issued in conformity with the Price Control Act this license gives OPA a basis for action against stores which refuse to conform to regulations. Machinery will be set up to afford relief where possible, but in the case of willful violators of regulations OPA may ask a court to suspend, for as long as 12 months, the license of a store. Without a license a store cannot operate.

All existing OPA price schedules and regulations issued in the past continue in full force and effect. Commodities covered by existing 60-day regulations will, upon expiration, automatically come

within the general ceiling regulation unless otherwise treated by separate orders. OPA will continue to issue separate orders on products of a nature requiring special pricing treatment.

Excluded Commodities

Commodities not covered by the maximum price ceiling fall generally into three classifications:

(1) Those exempted by the provisions of the Price Control Act either (a) because they do not fall within the law's definition of a "commodity"—this excludes advertising, motion pictures, wages, common carrier and public utility rates, insurance, real estate, and professional fees—or (b) by reason of the law's special treatment of agricultural commodities, unless and until they attain a level reflecting a substantial premium over parity. OPA estimates that foodstuffs included under the general price ceiling constitute from 60% to 70% in dollar volume of the household food budget. Administrator Henderson admits, however, that this coverage at the consumption level is not sufficient to detract from the practical necessity for amendment of the Price Control Act to establish "parity" as the ceiling on farm prices, as recommended by the President (page 15). If Congress accepts this recommendation, it is Henderson's intention to set maximum prices for certain farm products.

(2) Commodities which do not have organized markets and for which it would be almost impossible to determine maximum prices, either on the basis of previous sales or prices for comparable articles. Examples are highly seasonal fresh vegetables, fresh fish and game, objects of art, stamps and coins.

(3) Primary raw materials, such as timber, coal and mineral ores, all prices for which are substantially controlled by ceilings already in effect.

Specifically listed as excepted are: any raw and unprocessed agricultural or greenhouse commodity in substantially its original state, except bananas; eggs and poultry; all milk products, including butter, cheese, condensed and evaporated milk (but not fluid milk or fluid cream sold at retail or ice cream); flour (but not packaged cake mixes and other packaged flour mixes); mutton and lamb; fresh fish and seafood and game; dried prunes, dry edible beans, leaf tobacco (whether dried or green), nuts (but not peanuts); linseed oil, linseed cake and linseed meal, mixed feed for animals, and manure; living animals, wild or domestic; books, magazines, motion pictures, periodicals, newspapers and material furnished for publication by press association or feature services; domestic ores and ore concentrates; stumpage, logs and pulp wood; stamps and coins, precious stones, antiques and knotted oriental rugs, etchings, sculptures and other objects of art; used automobiles; securities; all waste materials up to the level of the indus-

trial consumer; zinc, lead and tin industrial residues; antimony ore and concentrates; instrument jewel bearings.

No ceilings are put on food or beverages sold for consumption on premises by hotels, restaurants, and similar establishments because the possibilities of cutting quality and quantity served are so numerous that enforcement of price ceilings would be extremely difficult. Other transactions exempted because of their individual or special nature include sales and deliveries: by a farmer of commodities grown and processed on his farm such as smoked ham, to a total of not more than \$75 in any one month; by an owner of used household effects or other personal property; by a merchant, mechanic, or person rendering professional services of his used supplies or equipment not acquired by him for the purpose of sale; by a breeder, trapper or hunter of pelts or furs to a total not to exceed \$75 a month. Also specifically exempt are used household or personal effects sold at bona-fide auction.

Relief for the Retailers

OPA's object in using a whole month for the pricing period was to produce as fair a maximum as possible. A shorter period might have fastened a retail-store to maximum prices at which goods were sold at bargain sales or as loss leaders. In fixing the effective date of the retail price ceiling one week after wholesalers' and manufacturers' ceiling OPA intends to give retail stores some opportunity to buy supplies at March wholesale prices before returning to March retail prices themselves. If a seller finds his maximum prices are abnormally low compared with prevailing maximum prices for the same or competing articles or services he may petition OPA for relief.

If a seller's maximum prices are in line with those of other retailers, but the retailers as a group can make little or no profit or even have to sell at a loss, they may also petition OPA for relief.

Retailers are certain to be the principal complainants because of the inevitable lag in price movements. Thus in March, a retailer may have sold a given item of merchandise at \$1.00, having purchased it six months earlier at 60¢. At the same time he may in March have had to pay 70¢ for that item to replenish inventory, expecting to advance his selling price proportionately in order to preserve his 40% selling margin. Now he is stuck with the \$1.00 maximum price and cannot take more than a 30% margin, unless he can obtain relief from OPA.

OPA has made it clear that that relief can only take the form of a "roll back" of prices at the manufacturing and wholesale levels. It will not permit the retail price to advance beyond \$1.00, but it will attempt to get relief for the dealer, if it is justified, by forcing suppliers to reduce prices below the 70¢ level which they would be entitled to charge under the price freeze.

BUSINESS AND THE NEW WAR ECONOMY

President's anti-inflation program wins general approval, but many individual groups oppose one or another of his seven points. "Reasonableness" of profits is among the baffling items.

Few indeed were the voices raised this week in disagreement with President Roosevelt's anti-inflation program as a whole. As the Chief Executive noted in his Tuesday night broadcast, all seem to agree with every point save the one "which steps on their own individual toes." What he failed to mention was that more than one of the points can come down on a single set of toes.

Even on points such as greatly increased saving through purchase of war bonds there is some lack of unanimity. Everyone's for it, but there are many who believe it should be made compulsory sooner rather than later. On the subject of the obviously much-needed price fixing, the issuance of the order was much easier than getting the necessary compliance at the outset.

There are points on both individual and corporate income taxes that are hard to swallow. Farmer and laborer alike think they have been done in, but each is quite sure that the other got exactly what was coming to him.

Stodious consideration of the President's program leads to several doubts, a few admonitions; yet this is the first over-all effort to get at the rising cost of living, and as such it's most certainly welcomed in principle.

Taxes and "Reasonable" Profits

In his tax proposals, President Roosevelt handed Congress a difficult problem in semantics. For the legislators must decide what the President means by keeping "personal and corporation profits at a reasonable rate, the word 'reasonable' being defined at a low level."

The President went on to specify that \$25,000 should be the maximum individual income. This would mean that his \$75,000 salary could never net him more than a third that much, and this would put him on a par with Prime Minister Churchill, who can retain only about £6,500 from his £10,000 earnings. (In Great Britain, to all practical purposes, the maximum income is \$26,000 a year.)

• **And for Corporations?**—However, the President did not define what he meant by a "low level" of income for corporations. And that is bound to lead to a wrangle in Congress. In its tax proposals, the Treasury tried to put a limit on corporate incomes with a stiff graduated excess-profits tax. But there was no ceiling, based on the profits of past years.

Great problem in setting a ceiling is to get a fair, or reasonable, base. One possibility is to set a high, almost confiscatory, tax on profits above a certain amount earned in the past—say average earnings between 1936 and 1939; or the single year 1941; or the higher (or lower) of the two possibilities. In that way, each corporation would have its own ceiling; and would know exactly how far it could go in earning power.

• **Problem for Congress**—Upshot of the President's tax theories will be to prolong the debate over the Treasury tax bill now before Congress. Congress is not apt to accept the idea of a \$25,000 top on individual incomes; it would play hob with personal commitments—insurance policies, debts, household establishments, etc.

And Congress is more likely to write down, instead of up, the current corporation tax plan which calls for a 24% normal tax, 31% surtax, and excess-profits taxes up to 75% (BW—Mar. 7 '42, p13).

But probably the President never expected to get what he asked for. He's playing politics, to convince labor and the farmer that he really wants to freeze everything.

Fixed Prices Need Enforcement

Now that the price control order (page 14) has been made public—in substantially the form that was expected (BW—Apr. 18 '42, p5)—the big problem becomes one of administration. The retailers, of course, don't like the order because it failed to eliminate the so-called "squeeze" between wholesale and retail prices.

The Office of Price Administration is setting up a Retail Trade and Services Division, under Merle Fainsod, to give ear to such squawks.

Meanwhile several hundred field offices—probably around 400 or 500—will be established to deal with local flareups. When all's said and done, it's probable that a lot of manufacturer and wholesaler prices will have to be rolled back. Theoretically, the rollback need not be extensive—but wait till 1,700,000 retailers start shouting in chorus.

• **Boards by Thousands**—As for the consumer, he's supposed to air his complaints first to OPA offices, and later probably to rationing boards, of which there are now 9,000.

Thus, between retailers and consumers, the administrative machinery of OPA is bound to be immensely ex-

panded. And its immensity will be vulnerable to the complaint of politics and favoritism. Undoubtedly foreseeing this, OPA has made its order tough—much more so than expected.

More Rationing—and Soon

Closest ally of price control is rationing. If increased consumer purchasing power is not to create a scramble for scarce goods, resulting in "black markets," then the amount of each scarce commodity to be had by every individual must be arbitrarily settled.

Vastly increased needs of many homely articles by the armed forces and for lend-lease will shortly make themselves felt in a greatly increased degree. Wool, cotton, and rayon fabrics for clothing, heavy leather for men's shoes, staple items of the kitchen like fats and oils are not yet too hard to get, but the squeeze is coming—and so is rationing on an important scale.

Labor Gets a Jolt

"I believe that stabilizing the cost of living will mean that wages in general can and should be kept at existing scales." That was the sentence in the Roosevelt message which promised to halt the advance in hourly wage rates which have climbed steadily since July, 1940 (from a national average of 66.7¢ to 80.3¢, measured by Department of Labor figures).

It also brought near-consternation into the councils of organized labor; it promised to put an end to an era of collective bargaining and union growth.

• **What the Policy Means**—If the Roosevelt policy is put into practice as it was enunciated before Congress it will wash away one powerful incentive for union membership. A union which cannot get wage increases is only half a union and can count on only half the loyalty and support of workers.

There'll be no law on wages—yet. The National War Labor Board will put the Roosevelt directive into effect in the cases which come before it, with some latitude, however.

Farm Resentment Strong

Beaten once before when he tried to hold back farm price-lifters, Roosevelt jumped into certain trouble when he returned to the farm fight in his anti-inflation message. Farm spokesmen, after saying that farm price lowering without equal checking of labor's wages was not to be thought of, said provisions of the existing Emergency Price Control Act were restraining enough.

By suggesting that prices be nailed to

parity, Roosevelt implied rejection of the four-option levels of the present price control law. These represent minima at which OPA can now roof farm products. The four, highest of which constitutes the lowest point OPA can use as a ceiling, are: 110% of parity; market price on Oct. 1, 1941; market price on Dec. 15, 1941; and the average price from mid-1919 to mid-1929.

The suggested flat 100% of parity as a limit would hurt some farm prices, merely curtail hopes of others. Most products now are limited by 110% of parity, which in their case is the highest of the four levels.

• **How Crops Would Fare**—Grains could climb 20% and better to reach parity. Butter, eggs, and poultry would have to quit about where they are, since they are now right close to parity. Flax would have a little room to rise, livestock would have to come down some. Cotton, now about parity, would lose no ground, but since it is one product limited by the 1919-29 average (4¢ a lb. higher than cotton parity) would lose the chance to rise that 4¢.

Imposition of Roosevelt's flat parity ceilings would just about balance out farm ingredients in the cost of living at present levels, cutting some, allowing rising-room for others. Over-all price ceilings in all fields—retail prices, wages, etc.—would stabilize parities, help hold farm prices stationary. But the indignation among farmers would be huge.

More War Bonds—or Else

Voluntary purchase of war bonds by individuals unquestionably is one of the most desirable of goals, both in financing the war and in warding off inflation. Yet not everyone will see eye-to-eye with the President as to "every dime and every dollar not vitally needed"; some people will think they need money for purposes clearly not essential.

Hence, the compulsory purchase plan which the President so far rejects remains a very live issue. Even Morgenthau's goal of 10% of national income voluntarily going into war bonds would raise a bit less than a billion a month—leaving the Treasury with the responsibility of huge open-market borrowing (perhaps \$2,000,000,000) every month even if tax revenues sharply increase.

Tighter Credit Rules

Even before the President urged the discouragement of instalment sales, it was apparent that the Federal Reserve Board was hard at work whipping together an order to toughen still further its rules on credit. Heretofore the volume of small loans has not been effectively controlled, and charge accounts have been under no restraints whatever. Plugging of these loopholes is the present objective.

Business of War

Production is uppermost as U.S. Chamber of Commerce meets, but President's tax ideas and labor stand jar members.

Though the surroundings were strange—Chicago instead of Washington for the first time since 1918—the situation of the United States Chamber of Commerce convention last week was thoroughly familiar. Perennial plight of this organization, or perhaps its continuous good fortune, is that the politico-business situation always provides issues over which the membership can develop whole-hearted excitement. As the advance announcements of this year's conclave were being publicized in midwinter, national unity after Pearl Harbor had reached a new high. The skies were

clear, and everything was jake. The convention's slogan was accordingly set: "Let's Get It Done."

But in the interval it became apparent to apprehensive members that unless something could be done to abort the trend, the National War Labor Board's mediation (page 71) might award maintenance of membership or a union shop to every certified local with gumption enough to work up a lusty labor dispute and hold out until its case could come up. A secondary danger, but still a danger, was that the Chamber's favorite war-finance, anti-inflation program for a sales tax and a withholding tax would wither on the vine for lack of Administration support.

• **A Program Sparks**—Last Monday, as the early-bird arrivals began lining up to get their convention badges, President Roosevelt's message to Congress (page 15) confirmed their worst fears. By plugging for the heaviest-ever corporation and individual income taxes and sidestepping any hint of restraint on organized labor's ambitions for union security, the President probably accounted for the extra heavy registration that swarmed into Chicago during the next two days—up 30% from the 1,700 last year.

Major interest of everyone was, of course, the successful prosecution of the war. But two big worries also pervaded everything. The union shop and wartime taxation were in the background thinking not only of the speakers who were Chamber leaders—mostly top-flight business men—but also of the corridor and cocktail-bar conversationalists among whom were Main Street merchants who constitute the national organization's rank and file. In the committee room and open session debates about these threats to the members' credos of management control and monetary stability, all danger of a tediously tranquil meeting vanished.

• **Four Points of Stress**—In his keynote address last Tuesday, the president of the Chamber, Albert W. Hawkes of Congoleum-Nairn, bore down upon four major topics. Of the positions he took on these subjects, none was exactly a surprise. Mr. Hawkes cautioned workers against losing their right as individuals to work without union interference; he came out strongly for a 48-hour working week before overtime premiums; he urged reduction in nonwar governmental expenditures; he warned of rocks ahead on any course guided toward excessive taxation in the upper brackets.

At last year's convention delegates were primarily interested in getting defense industries for their home towns. This year most of them had forgotten about town boosting, were thinking and talking rather in terms of the munitions output that they had already attained.

• **Ahead on War Contracts**—Members of the Chamber's headquarters staff, vis-



When delegates to the U.S. Chamber of Commerce meeting in Chicago this week selected Eric A. Johnston of Spokane for their new president, they certainly picked a glutton for extra-curricular punishment. Head of the Brown-Johnston Co., and Columbia Electric & Mfg. Co., Johnston has found time to serve in various official capacities as well as on an endless list of committees of his local chamber, the U.S. Chamber and the Manufacturers Assn. of the Inland Empire, of which he is a past president.



STAR INSPECTION

In Seattle where the Boeing bombers grow, Lt. Gen. William S. Knudsen last week wound up a two-month

cross-country inspection trip of 170 war production plants by following the construction of a Flying Fortress, step by step. He was accompanied by Boeing's president, Philip G. Johnson.

iting with hundreds of friends among the manufacturers, report that their plants are delivering finished war goods far ahead of their contractual schedules and that plant additions which they have under construction are likewise running ahead of par. Most of them seem confident that their lead over bogey will increase rather than shrink in the coming months.

Reports from business associations confirmed this impression of progress with specific fact and figure presentations on war construction, housing, transportation, manufacturing, critical materials, vocational training, and civilian defense.

• **Real Good Neighbors**—Current interest in Latin-American trade was testified less by government speakers than by business men who told of good-neighbored sentiments in terms of dollars-and-cents commercial volume that they now have and think they can hold.

The armed services took over one evening and invented a new style in convention entertainment that will doubtless be used by every association able to land the act for its meeting. The Army led off with a typical soldiers' mess dinner, cooked on field stoves and served to the delegates; the Coast Guard rescued a shipwrecked sailor from the ballroom balcony; the Navy showed off—with due discretion—its secret airplane detector, and wheeled a gun crew into action complete with the firing of blank shells.

Have a Seat?

For a small consideration you can sit with those among the Wall St. mighty who haven't turned to night club singing.

A versatile follower of trends is George E. Price. A headliner in the days of vaudeville, he financed purchase of a New York Stock Exchange seat when he saw his end of the show business going under. He stuck to the exchange as senior partner of his brokerage firm until he saw it turning just about as sick as anything he'd ever seen from the footlights, and then turned to the nighteries—although still holding his control of the brokerage firm.

• **Comeback at La Conga**—He made his comeback in entertainment as master of ceremonies at La Conga in New York City. Last winter he song-and-danced in Miami's gay spots, then returned to Broadway as star of the La Martinique revue.

Currently, he's on the feature spot at the Mayfair Club in Boston and spends his spare time preparing a radio program for (he hopes) a cigarette company sponsor. With whatever time is left over, he tends to policy formation and decision-making at long range for his brokerage firm, George E. Price & Co.

• **He's Not the Only One**—Price isn't

the only discouraged Wall Streeter. Actual sales of stock exchange memberships are averaging from six to eight a month, although something like one-fourth of these are interpartnership or other transfers for a nominal consideration. About 18% of the transfers represent liquidation of estates of deceased members.

Nearly one-eighth of the sellers remain around Wall Street as partners or employees of the firm with which they were associated. Almost 8% decide that they've had enough and just plain retire.

• **War Calls Some**—A growing percentage now are going into war work. Last year Frank Beane, of Fenner & Beane, son of the late Alpheus C. Beane, transferred his membership, retired from the firm, and went directly into the Steel Division of the Office of Production Management. Charles S. O'Neil of McClave & Co. sailed to Trinidad on a construction job. John B. Huhn saw the world—mostly Florida—with the Navy. Henry Steele Roberts stole away from dull Wall Street for a more satisfying job in New England.

Several others became subcontractors on defense jobs. One entered the musical business, another became a publisher, still another is now a shipyard executive. Fully half of those who have sold their seats, however, are still seen around Wall Street in one capacity or another.

• **Taking Losses**—With seats going at around \$17,000, a 45-year-low, most sellers are taking losses, even though they perhaps earned a worth-while income while on the membership rolls. John W. Foster, for instance, paid \$480,000 for his membership back in 1928 and sold in 1941 for less than 5¢ on the dollar. Last month Foster again became a member by purchasing a seat for \$17,000.

A fortunate few sold out at the high prices of 10 to 15 years ago and now are buying back their seats at a considerable saving. Bond McEnany & Co., for instance, sold their membership eight years ago, stayed in business as a cotton firm, and recently repurchased.

• **Handsome Turns**—The securities firm of Strandberg, McGreevy & Co. of Kansas City in 1915 bought a Big Board seat for \$60,000. Partner Milton C. McGreevy took over the membership in 1929 and sold it a year later for \$465,000 when his firm, then McGreevy & Co., merged with Harris, Upham & Co. Last year McGreevy's son bought a membership for \$27,000.

Another handsome turn was completed by Francis S. Page, who bought a seat in 1912 for \$59,000 and sold it in 1930 for \$467,000 plus \$109,000 for a right to the one-fourth seat dividend in a one-for-every-four splitup. He bought in again and now is an independent operator who winters in Florida and summers in New York. Some of the pur-

chasers of Big Board seats are doing so purely on the chance of a speculative rise in seat values, although other reasons must be officially given for the record. The membership committee, which must pass on all candidates for membership, doesn't necessarily reject a speculative purchaser if he is otherwise acceptable. That the committee is choosy, however, is shown by the rejection of about one applicant every six weeks.

Some wealthy investors who do a considerable amount of trading find it profitable to buy a seat and save commission fees. Others buy because of the prestige value of being a "member of the New York Stock Exchange."

● **Death Benefit**—Some of the more elderly purchasers have an eye on the fund from which beneficiaries of deceased members are paid \$20,000 in cash. The annual dues are being reduced to \$750 a year, which isn't much more than the insurance premiums would be on a

\$20,000 policy at the older ages. And, after collecting the \$20,000 proceeds, the beneficiaries can sell the membership, perhaps for more than the current cost of around \$17,000.

Nonmember firms are in some cases becoming members while they can do so fairly cheaply. Curb members are graduating into the big time. Norman F. S. Russell, well-known president of U. S. Pipe & Foundry, bought a membership because he has two sons, one 21 and one 19, who can use the seat later if their interest in the investment business continues.

● **Out of a Hat**—Most of the buyers are looking years ahead, while sellers see the dullness of the moment. One likeable former Wall Street customer's man, Russell Swann, found times so dull on Wall Street that his time was his own to practice on his hobby, magic. Now the featured entertainer at the Persian Room of New York City's swanky Hotel Plaza,

he nightly pulls cats and dogs out of a hat for speculators who there convert their funds into a liquid form more freely than when he analyzed for them the operating ratios of ABC Corp.

L.A.'s Plea Fails

City's hopes for integrated aluminum industry are dashed when WPB decides to build new rolling mill in Middle West.

Decision has been reached by the War Production Board to locate additional aluminum rolling mill capacity in the Midwest. This is a blow to hopes of Los Angeles, center of aircraft manufacture, that it would also become the center of a completely integrated aluminum industry.

● **Los Angeles's Case**—A government-financed alumina reduction plant and a structural plant for the Aluminum Co. of America and an extrusion plant for Bohn Aluminum & Brass Corp., building in the area, provide the nucleus.

The Angelenos thought they had a good case for the addition of a rolling mill in the heavy demand of their plane plants for sheet aluminum. WPB officials admit that present aluminum fabricating capacity in the Los Angeles area isn't sufficient to consume the entire ingot output of the reduction plant, that the surplus must be shipped to Midwest mills for fabrication and the sheets shipped back to coast aircraft factories.

● **Spokane's Mill**—A rolling mill now under construction in the Spokane area will be supplied with ingot by the reduction plants in that region and the sheet shipped to Seattle, Los Angeles, and San Diego plane plants. Spokane got its mill over Los Angeles's strenuous arguments that this arrangement means heavy freight costs and traffic congestion on the coastwise rail haul.

Vulnerability to attack was at least one reason why L.A. lost out, although the proposed site, to be supplied with power from Los Angeles, was inland. The Californians suspect, however, that the decision was influenced by John Boettiger, the President's son-in-law and publisher of the Seattle Post-Intelligencer.

● **And Then Chicago**—Even so, Los Angeles still thought it had a chance. Another projected rolling mill remained to be located. Then, however, Los Angeles Chamber of Commerce and the Department of Power and Light ran into the argument that inasmuch as the Spokane plant would supply most of the sheet needed on the West Coast, a second mill in that area would be largely a duplication. The decision went to Chicago.



CONQUERORS' CURRENCY

Hoarding by the conquered and seizure by the conquerors account for the disappearance of silver and nickel coins from circulation in Axis-occupied countries, but nowhere is there a shortage of currency—or what passes for it. In the Philippines the Japanese are following the same policy they have pursued in every new territory

they have occupied since their invasion of Manchuria in 1931—that of flooding the land with printing-press notes. The Nazis were unable to stop an epidemic of hoarding which followed a proclamation by the Dutch government in exile that old Dutch coins would be valid after Holland's liberation, but they promptly minted new zinc coins which lack the familiar inscription, "God Be with Us."



Beer's Bottlenecks

Industry's war problems arise chiefly from metal shortages. Cans are out; caps have to be made of new materials.

The brewing industry, which recently celebrated the ninth anniversary month of its rebirth after prohibition, is up against some war problems. The most serious of these problems concern its metal requirements, which bump into priorities.

• **Beer Cans Are Out**—Because of the tin shortage, beer cans are out. Brewers will be allowed to work off stocks on hand until May 31, after which no beer may be sold in such containers. Only question yet to be settled is whether cans will be allowed for fighting men overseas. Exception may be made in this case because of their can's advantages in storing and shipping. Thus war nullifies, for the time being, at least, the long and costly drive undertaken by the can manufacturers to break the glass bottle monopoly in this field.

There is no shortage of glass but there is a literal "bottleneck" in bottling. Caps are the basic worry. Beer bottle caps consist of the crimped outside of tin-plated steel, the metal "spot" inside this, and the small disc of cork. All these materials are now required for use against the Japanese and the Germans.

• **Experimentation**—Spots used to be made of aluminum. When this was prohibited, plastic spots were employed. Now plastic supplies are tight because of raw material shortages, so the brewers are driven to experiment with paper. Cutting down of cork imports has forced another search for substitutes. And instead of tin-plate for the main cap, the industry is trying out black plate. This is thin steel sheet, without the tin coating, which is brought to an attractive golden sheen by bonderizing (BW—Feb. 14 '42, p64) and lacquering.

Also out for the duration are metal beer kegs, whether of aluminum or steel. There would be plenty of old-fashioned wooden kegs but steel for hoops is lacking and so is cork for the composition that makes the bungs. Meanwhile, researchers are working on a glued beer case that won't need metal to hold it together.

• **Eligible for Tires**—Brewery trucks are eligible for both new and recapped tires, but deliveries must be to the trade, not to consumers. Some local rationing boards balked at including beer among the "finished products" authorized to receive tires under the regulations until the Office of Price

Administration had definitely ruled in its favor.

You don't raise a laugh in the industry by asking if "the brewer's big horses" are galumphing back into the delivery picture. The retort is, "Where would we get the horses? Or the wagons?"

Brewery organizations are urging members to save gasoline and tires by loading their trucks efficiently, re-routing to cut down mileage, reducing the number of deliveries. In some cases, breweries are eliminating one day a week from delivery schedules. Furthermore, the possibility of cooperative trucking programs is under consideration.

• **Grain Supply**—Least of the brewer's perplexities is his supply of grain. Main requirements—barley, corn, rice, hops—are abundantly available. There was a time when hops (the fragrant clusters

that give beer its final flavor) were bought abroad in large quantities. Now Washington, Oregon, and California supply domestic needs and even some exports. Only war threat here is to transportation between field and brewing plant.

Beer is one of the candidates being eyed by Washington tax hunters for heavier war burdens. The federal tax on beer is now \$6 per bbl. of 31 gal. An additional impost of \$2 has been suggested. Special emphasis on taxes paid was evident in anniversary releases by the Brewing Industry Foundation, New York, top public relations outfit of the beer makers.

• **Nine Years' Take**—The Foundation asserted that federal taxes skimmed off legalized beer during the past nine years totaled \$2,345,000,000, that the state and local take was an additional \$935,000,000. Uncle Sam's beer rev-

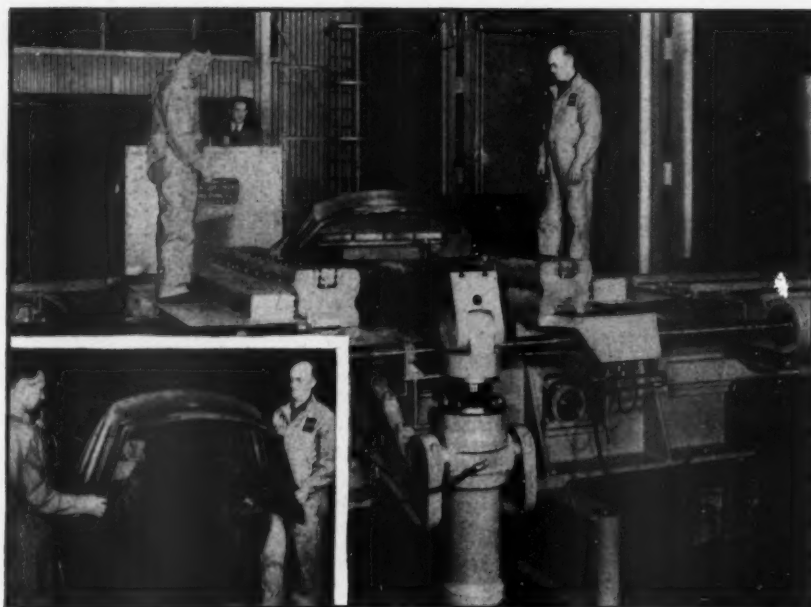


WOOD—WITHOUT WASTE

To save steel, one of the big new Army ordnance plants is being constructed with timber trusses and timber columns. The trusses were prefabricated on the job with bolts, split-

ring connectors, and shear plates. Timbers were purchased cut to design length. Economy of the method is indicated by the size of the wood scrap pile (below)—all that went to waste out of 2,225,000 bd. ft. used in making up the trusses and columns.





SKIN STRETCHER

Out of the war effort comes the versatile metal stretching press, or airplane skin stretcher (BW—Feb. 14 '42, p72). Newest stretcher is the all-hydraulic HPM, just demonstrated by its builder, Hydraulic Press Mfg. Co., Mt. Gilead, Ohio, on dural panels for airplane fuselages and pontoons, steel corner sections for bus bodies. Two

massive jaws clutch opposite sides of a metal sheet as large as 84x100 in., stretch it over an inexpensive wood, steel, or composition die, while a platen supporting the die pushes and jiggles it upward to speed the forming operation. For the duration, most stretchers will do aviation work; afterward they are expected also to make parts for motor vehicles such as show cars, buses, hearses, trucks.

enue for 1941, translated into war goods, would buy "nearly 1,000 four-engined bombers, or 3,488 fighter planes, or 43 destroyers, or 5,194 medium tanks," or it would equip 1,392,000 soldiers. Since 1933, the industry reports, beer has given jobs to 1,000,000 persons, promoted purchases of \$815,000,000 in farm products, benefited business through retail sales totaling \$15,250,000,000.

Except for war's hits and near misses, the wholesome beverage of moderation would be sitting pretty. Sales have followed the national income upward. Army exchanges (the soldier's retail stores) stock beer regularly, provide new volume sales outlets. From this vantage point, the brewer can enjoy the far-flung quarrel over selling hard liquor near Army camps. Since prohibition, the beer industry has tried to disassociate itself from the whisky distillers by insisting that its product is a nourishing beverage, not a vehicle for whoopee.

• **Packaged Beer's Gain**—While the war has imposed a temporary decision of the can-bottle struggle in favor of the latter, results of that epic linger in the statistics. It reveals a large gain of packaged beer over draught. While many an

addict will still tell you that canned or bottled beer falls short of the best draught, the tussle has stimulated powerful sales drives in the packaging field to the detriment of promotion for draught beers.

Last year total beer sales were 56,770,000 bbl., a rise of 5,133,000 over 1940. The entire increase was due to heavier purchases of packaged beer; draught beer sales fell slightly during the period. This year tells the same story. In January, packaged sales were 38% ahead of the same month of 1941, while draught beer sales were up only 7%. In February, packaged beer was up 31%, draught up 5%.

• **Sales Innovations**—Times being what they are, the brewers are too busy with problems in the plant to worry much about new sales stunts. But innovations still come to light. In Detroit, the Goebel brewery advertised a suggestion that automobile dealers become distributors of beer (BW—Jan. 24 '42, p20). There was no stampede of acceptance on the part of the dealers. However, Goebel's pointed out that some of its distributors clear \$40,000 annually. The company thinks it possible that such reminders may in time change the auto dealer's attitude.

Squatters' Move

Government bent on cutting legal complications and regaining Philadelphia houses built for workers in the last war.

Department of Justice attorneys, their fingers crossed, believe that a 21-year-old dispute over a nest of workers' homes built in Philadelphia during the last war has reached settlement. They hope so, at least. The settlement, approved in U. S. District Court, is but a temporary truce to hold in abeyance for 60 days a mass of eviction writs while householders make up their minds to buy at appraised prices—terms strictly cash—or to move pronto. The community is in the shadow of labor-jammed Philadelphia Navy Yard, whose officials watch the proceedings with keen interest.

• **Forcing a Showdown**—Only an acute housing shortage, created by the present war, whetted the judicial knife which slashed through the knot of confused liens, titles, and back taxes. The Department of Justice, handed the hot potato some years back, began eviction proceedings recently to clear 450 of the 660 houses, and two weeks ago set one hand-picked federal worker's family out on the sidewalk.

Uncle Sam's assumption of the rôle of tough landlord with a big stick brought on name-calling, but definite results. The householders, quite accustomed to eviction threats, got sudden cold feet, and Michael Francis Doyle, their counsel, swung into immediate conference with William R. Churchill, assistant chief of the trial section of the lands division of the Justice Department. Doyle offered settlement terms similar to proposals tendered three years ago but never accepted.

• **Deeds Held Up**—Actual key to the muddle is the government's neglect in giving householders deeds when the properties were sold in 1920. The U. S. Housing Corp., operator of the project, wearied of threatening eviction back in 1919 and offered the houses at prices ranging from \$3,700 to \$4,500, taking a \$1,000,000 loss on the \$4,000,000 community. Titles were to have been handed over on receipt of 10% down payments, and monthly charges to run about \$28. What happened to the titles is unexplained.

The city waited patiently for the new community to ante taxes, then was informed none were forthcoming because the titles had never been transferred. The houses therefore were still federal property and not taxable.

• **Fine Plans But No Results**—Philadelphia's tax people offered attractive schemes of back-tax settlement, threat-

"Unforeseen events . . . need not change and shape the course of man's affairs"



MORE THAN AN EMBLEM

You see the American eagle every day on half-dollars, flag poles and in museums. Is he just a dusty emblem? Can he *fly*?

Your answer comes from the sky—in a voice a billion horsepower strong, as flight after flight of American eagles, our airmen, take wing this year.

The Civilian Pilot Training Program alone has already trained a brood of more than 90,000 young "eagles" to fly for freedom.

For protection against the financial hazards of flying, these students are provided with insurance—written by The Maryland and other casualty companies.

This is more than "business" to The Maryland. It is a chance to serve the forces of democracy... and to give strength to the eagle whose protection *every* American enterprise enjoys. Maryland Casualty Company, Baltimore.

THE MARYLAND

Practically every form of Casualty Insurance and Surety Bond, for business, industry and the home, through 10,000 agents and brokers.

ened, blustered, won their point in local courts, but reaped only a reprimand from the U. S. Attorney General when Receiver of Taxes Frank J. Willard in 1937 tried to seize rental monies on houses that had been sublet.

The problem got worse. Many original buyers had moved away, had long collected rents on structures on which, years before, they had paid only a small amount. Some of the houses, seemingly devoid of any staked claims, were just lived in free.

The new government pressure should clear out many of the homes for war workers. Yet the lawyers have still another bridge to cross—the matter of city taxes, piled now, including penalties, to about \$2,000,000. The government has promised to clear off city-filed liens by accepting clear title to the project, then contending that, federally held, it is free of taxation.

Philadelphia, which has supplied water, police protection, and other city services to the community since 1919, is reported set for a good legal battle if something isn't done about its bill.

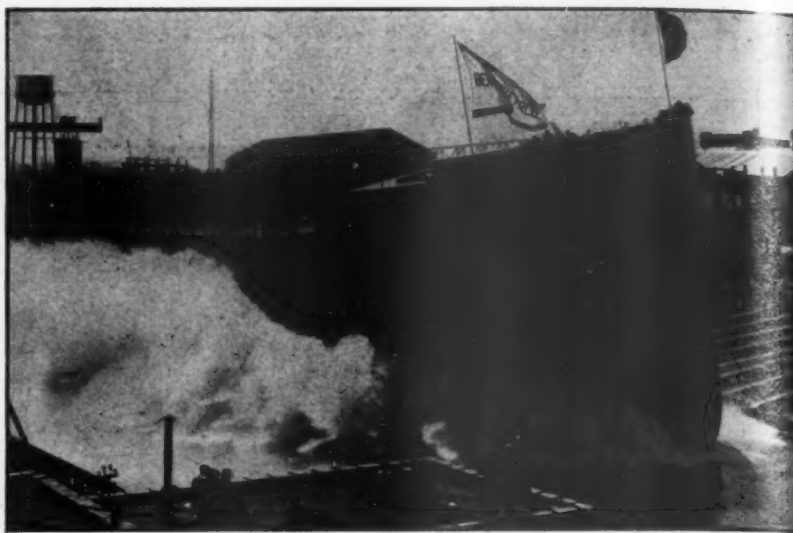
Engines for Ships

Old West Coast iron works retools and expands to turn out 271,000-lb. propulsion units on regular production line.

The West Coast, which always has been hungry for manufacturing enterprises to balance an economy dominated by agriculture and mining, appears to be on the way to satisfying that hunger, temporarily at least. The war production emergency is, of course, bringing steel and aluminum plants, as well as shipbuilding to the area.

• **New Life for Old Timer**—One manufacturing operation, the Joshua Hendee Iron Works at Sunnyvale (Calif.) which is producing marine engines, is attracting considerable attention currently on the Coast for several reasons: (1) it is a rejuvenation of one of the Coast's oldest enterprises which furnished much of the mining equipment for the colorful "gold rush era," and (2) in about six months it has become one of the largest producers of steamship engines in the United States, a unique record for Coast manufacturing, and (3) it is one of the lesser-known units in the "industrial empire" of Henry J. Kaiser and associates. The 271,000-lb. steamship engines swing along an assembly line from casting to shipping platform.

Last week the organization reached the half-way point in an expansion which began six months ago with a \$500,000 investment in plant and equipment and ultimately will reach about \$14,000,000. (There are orders from the



FOUR TO FOLLOW

The Benjamin F. Fairless, first of five of the largest ships ever to be built on the Great Lakes, has just been launched at Lorain (Ohio). Built by the Pittsburg Steamship Co., U. S. Steel subsidiary, each of the new ore

carriers is 639 ft. long, and their combined loads will add a maximum total of 93,000 long tons of single-trip capacity to the fleet of the Pittsburg Steamship Co., already the largest on the Great Lakes. The other four ships will probably see service before the end of the present season.

Maritime Commission on the books which will require something like twice the present \$7,000,000 investment.)

• **Record of Expansion**—The transformation began about 18 months ago when the Kaiser group and a San Francisco machine-tool distributor, Charles E. Moore, took over the almost-defunct plant and started turning out 2,500-hp., triple-expansion engines for the "ugly duckling," EC-2 ships which Coast shipyards are turning out.

While actual production figures can't be given, the Hendee plant is now producing about as many engines every two weeks as the same plant was able to produce during 24 years of the first World War. When the current expansion program is complete, the plant will be turning out something like half the entire U. S. output of this particular engine, Hendee officials say.

Six months after the new owners took over (in less time than it would have taken to get building steel and new equipment for an entirely new plant) huge additions with wooden frames had been made to the old Hendee Iron Works, used machinery (from all over the U. S.) had been collected, repaired, and installed, and \$114,000 steam engines were being produced at what Hendee officials say was a "record rate."

No less an accomplishment is the retooling job on the old iron works. Much of the machinery was 50 to 60 years old. Some of the presses, drills, and lathes weren't in much better condition, but they were repaired and put to work.

Too Much Silver

Morgenthau proposes to ask Congress to end purchase program so industry will be able to obtain more of metal.

"This would be a good time to strike all silver legislation off the books." In these words Treasury Secretary Morgenthau told his press conference of legislation he plans to recommend to Congress. Main object would be to make more silver available to industrial users at the "world" price by freeing the Treasury of its obligation to buy all newly mined domestic silver at a price more than twice as high.

• **Monetary Nightmare**—This purchase program was initiated Dec. 21, 1933, with the avowed purpose of raising the proportion of silver to gold in the Treasury's monetary stocks to 25% of the total value. Due to heavy concurrent purchases of gold, however, the scheme has flopped badly, and the proportion of silver has steadily declined. Chief result has been the accumulation of 3,280,000,000 oz., and a domestic price level of 71.11¢ an oz.—unattractive to industrial users.

Opposition to the new bill from silver states' congressmen is certain to be loud, but it is thought that their position has been materially weakened by the death of Nevada's Senator Key Pittman. Even



Groups of people like this, meeting in blacksmith shops, in taverns, stores, and on street corners, demanded that the Constitution be amended to guarantee certain rights. Among these are Freedom of Speech... Freedom of the Press... Freedom of Religion... Freedom of Assembly.

To these Four Freedoms... add another

RANKING in importance with these freedoms is another that Americans have added... Freedom to Plan One's Own Future.

Nowhere on earth is a man so free to plan his own future as he is in America. Of all the world's life insurance, 70% is owned in the United States where men, women, and children enjoy to the fullest the right to pursue happiness and security in their own way.

This right is not something that just happens to be in the air we breathe. Men had to fight to wrest it from the forces of oppression.

Today, these forces are at work against us again. They have thrust upon us a fight that requires more on our part than

the will to win. Victory requires tanks and planes and guns and battleships, huge armies, munition plants, and all other implements of total war.

To build enough of these things, fast enough, takes money—unheard-of sums of money. And the United States Government needs that money right now... today!

★ ★ ★

Your life insurance companies, through investment in Government Bonds, are helping to fill Uncle Sam's war chest. You also can help by buying all the U. S. Savings Bonds and Stamps you can... every week, every month! Every Bond you can buy is urgently needed to help defend America, and all its people, including you

and your family! Make every payday, Bond day. U. S. Savings Stamps may be purchased at any Metropolitan Office, or from any Metropolitan agent.

Metropolitan Life Insurance Company (A MUTUAL COMPANY)

Frederick H. Ecker,
CHAIRMAN OF THE BOARD
Leroy A. Lincoln,
PRESIDENT
1 MADISON AVENUE, NEW YORK, N. Y.



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so, there is a good possibility that they will be able to force tabling of the measure until after the congressional elections in November. Since the passage of the Silver Purchase Act of 1934, the world price has also been supported by the Treasury, and this now stands at 35¢ an oz. The net effect on nongovernmental consumers is to establish a floor of 35¢ under silver for industrial

use. Nor is it likely that this level will be lowered, since agreements are in effect with certain foreign nations—notably Mexico and Canada—guaranteeing them a minimum of 35¢.

Meanwhile, loan of the government's surplus silver for use as a substitute for copper in electrical conductors such as bus bars (BW-Apr. 11 '42, p27) was finally approved. Previously this was

held up by the insistence of the Defense Plant Corp. that adequate insurance be provided against loss or theft of the metal. Morgenthau's reaction was that he wasn't much worried about anyone stealing a bus bar with several thousand volts of current passing through it, but he said that delivery of the silver had nevertheless been held up because of that one point.

Materials—and Their Scarcity Ratings

A couple of months ago, the War Production Board issued its first report on the relative scarcity of industrial materials. WPB divided these into three groups, according to their availability for use in civilian production. In Group I and Group II are materials expected to be available—if at all—for only the most vital civilian needs. To replace these, manufacturers must draw on materials in Group III—but even some of these substitutes are growing tight.

How tight is shown by WPB's current revision of its original report. Significantly, 12 materials—including cotton duck, nylon, palm oil, quartz crystals, and shellac—have moved up from Group II to Group I. Similarly, several materials have moved from Group III to Group II. Supplies of a very few materials—casein, lead, iodine, linseed oil, and sugar—have loosened up. There are many newcomers on all three lists. Here is WPB's second report on scarcities:

Group I: Materials most vitally needed for war purposes; not generally available for civilian needs

Acetone	Copper scrap	Methyl methacrylate sheets	Rhodium
Agar	Corundum	Mica splittings	Rubber (crude, latex, chlorinated, synthetic)
Agave fiber	Cotton duck	Nickel	Shearlings
Alcohol (methyl)	Cotton linters	Nickel scrap	Shellacs
Alloy steel	Dephenylamine	Nylon	Silk and silk waste
Aluminum	Feathers and down (goose and duck)	Palm oil	Sodium nitrate (pure)
Aluminum scrap	Formaldehyde	Phenol	Sperm oil
Ammonia (anhydrous)	Graphite (Madagascar)	Phenol formaldehyde resins and plastics	Teak
Anthroquinone derivatives	Halogenated hydrocarbon refrigerants	Phosphates	Tin
Asbestos (long fiber)	Hemp seed	Phthalic anhydride and phthalates	Tinplate and terneplate
Burlap	Iridium	Pig and hog bristles	Toluol
Cadmium	Iron alloys	Polystyrene	Tung oil
Calcium-Silicon	Jewel bearings	Polyvinyl chloride	Tungsten and tungsten carbides
Cashew nut shell oil	Kapok	Quartz crystals	Urea formaldehyde plastics
Chlorinated hydrocarbon solvents	Kyanite	Quinine	Vanadium
Chlorine	Magnesium	Rape seed oil	Wrought iron
Chromium	Manila fiber and cordage		Zinc (high grade)
Cobalt			
Copper			

Group II: Basic materials essential to the war industries but not as critically limited as materials of Group I

Albumin (blood)	Cotton seed	Manganese	Ruthenium
Alcohol (ethyl)	Cryolite	Mercury	Silicon and alloys
Antimony	Diamonds (industrial)	Methyl methacrylate	Sisal
Arsenic	Diamond dies	Molasses	Spirits (distilled)
Barium carbonate	Ferrosilicon	Molybdenum	Steatite talc
Benzine	Fish liver oils	Natural gas	Steel scrap
Beryllium-copper	Flax	Natural resins, except rosin	Tanning materials
Borax and boric acid	Glassine papers	Parchment paper	Tetraethyl lead
Butanol	Glues (animal and vegetables)	Pig-iron and scrap	Titanium pigments
Calcium	Glycerine	Phosphorus	Vitamin A products
Camphor	Henequen	Platinum	Vulcanized fiber
Carbon tetrachloride	Hides and leather	Potassium perchlorate and permanganate	Wood pulp
Citric acid	Jute	Powder	Wool
Clycols	Kraft paper	Rayon	Xylol
Cocconut oil	Lead	Rubber (reclaimed)	Zinc (low grades)
Cork	Lithium		Zirconium
Cotton (raw, long staple)			

Group III: Materials available in some quantities for other than strictly war purposes—generally as substitutes

Ammonia (aqueous)	Cotton (raw)	Limestone and marble	Salt
Asbestos (common)	Cottonseed oil	Linseed oil	Silica sand
Asphalt	Diatomite	Lumber and millwork	Silver
Atabrine	Emery	Malleable iron	Slate
Basic low-carbon steel	Feldspar	Mica (common)	Sodium metasilicate
Bessemer steel	Fluorspar	Mineral wool	Sodium nitrate (commercial)
Bismuth	Gilsonite	Muriatic acid	Soy beans and products
Brick and tile	Glass	Osmium	Starch
Carbon black	Gold	Palladium	Straw
Casein	Gray cast iron	Paper (except items under II)	Sugar
Cellophane	Gypsum and products	Paperboard	Sulphur
Cement	Hair (cow and horse)	Petroleum products	Tripoli
Ceramics	Indium	Plastics (cellulose, acetate, butyrate)	Turpentine
Charcoal	Invert sugar	Plywood (unrestricted binder)	Uranium
Clay	Iodine	Pottery	Vermiculite
Coal and coke	Lactic acid and lactates	Rosin and derivatives	Wall board
Coal-tar pitch	Lignin plastic		Wood and products
Concrete	Lime		

COUNT *THIS* ARMY IN !

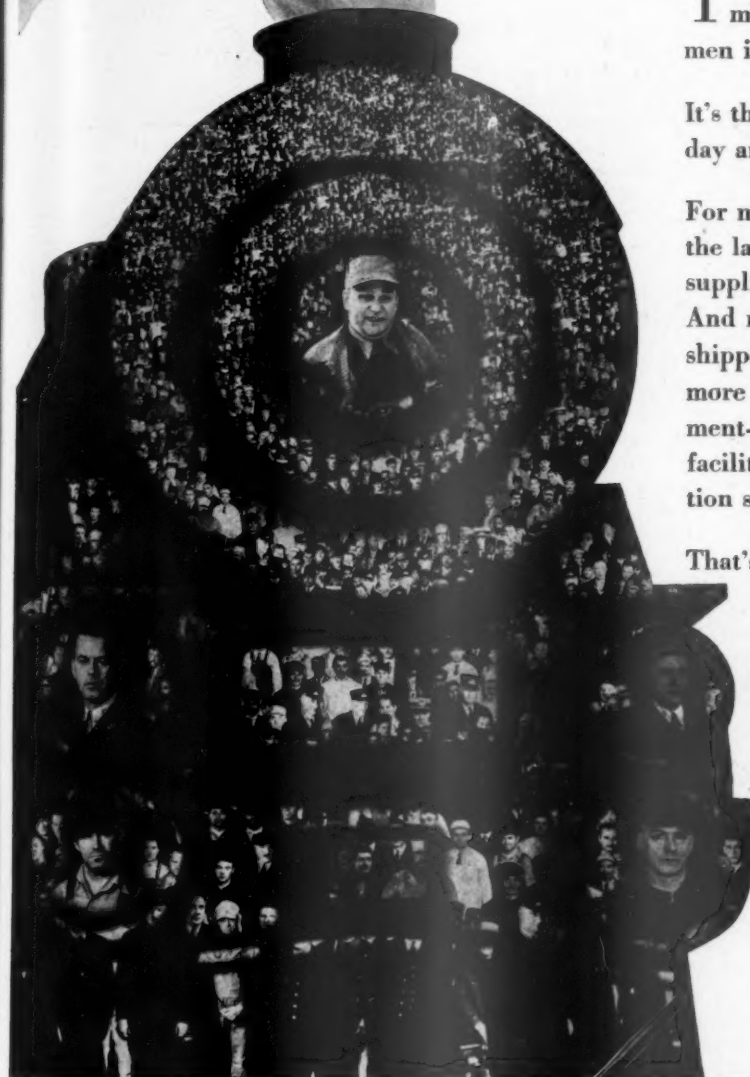
THERE'S a trained army more than a million strong working to back up the men in uniform.

It's the army of railroad men, on duty day and night in every state in the Union.

For more than twenty years—ever since the last war ended—this army has been supplied with better and better equipment. And railroads, military authorities and shippers have worked out plans to get more service out of each piece of equipment—to get the most use out of every facility of the world's greatest transportation system.

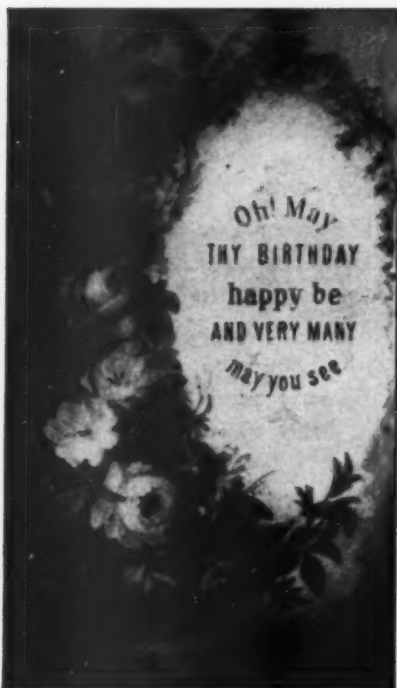
That's why this railroad army is meeting emergency demands—why, for every minute of the day and night, it is moving *a million tons of freight a mile*—an all-time record for this or any other transportation system in the world.

All this veteran army needs, to meet future challenges, is a flow of new equipment great enough to match the rising tide of America's war production.



ASSOCIATION OF
AMERICAN RAILROADS

WASHINGTON, D. C.



Styles in sentiment: the Gay '90s—

Millions for Tribute

Greeting card business is cashing in on a war market, with fighting men added to the long list of peacetime recipients.

Time was when a man bought a card for his mother on Mother's Day—May 10 this year—and that settled the problem. Nowadays, the greeting card industry is doing its best to make a piker of the man who remembers only his mother. There are suitable messages, tying in with the occasion, for his wife, his mother-in-law, his daughter, his friends' mothers, and the whole gamut of female relatives and acquaintances. The ladies can reciprocate. "To my son in the service on Mother's Day" is a current best-seller.

• **18 Cards Per Capita**—According to a Dun & Bradstreet survey, American manufacturers produced some 2,400,000,000 greeting cards in 1940. This figures out to about 18 cards for every man, woman, and child in the country. Total value of manufacturers' sales of cards (plus a few tags and seals) came to around \$43,000,000 in the same year.

Thus the industry has gone a long way toward recouping its losses since 1929, when manufacturers' sales totaled around \$50,000,000. Depression deflated sales to \$28,000,000 in 1931. By 1935 they had climbed to \$30,000,000, and they have been on the upgrade ever since.

• **Ahead of Last Year**—Sales figures for 1941 are not yet reported, but they're generally estimated as being at least 15% higher than 1940 at retail. Manufacturers' sales currently are running 20% to 25% above this time last year. Norcross Publishing Co., one of the biggest manufacturers, reports the best Easter in its history this year.

The man in service is a much-remembered fellow. It is estimated that men in the Army, Navy, and Marine Corps have received a total of around 25,000,000 cards since Dec. 7. They have returned the compliment by mailing about 5,000,000 cards back home.

• **Morale Angles**—Morale officers of the Army and Navy regard this staggering exchange of sentiment with mixed feelings. A good many are of the opinion that the money, energy, and emotion involved might better have been spent elsewhere. Officials of the Office of Civilian Defense, however, have gone on record as believing that the greeting card makes a definite contribution to national morale.

Greeting cards can cost anywhere from a penny to \$5 apiece at retail. The big sales volume is in 10¢ and 15¢ cards. At least 80% of the sales are to women, but men buy more expensive messages. They are virtually the only customers for the \$5 variety, which are mostly limited to Valentine and Mother's Day cards and will include such frillery as real lace, hand coloring, and flower sachets.

• **People Who Buy**—Biggest buyers of cards are people in the \$1,200 to \$3,500 a year income group. They account for an estimated 50% of all sales; 37% of sales are to people with less than \$1,200; only 13% to those with upper-bracket incomes. The industry's best customer probably is the young woman office worker who has enough lunch time to enable her to browse in stationers' shops.

Over 50% of all greeting cards are sold at Christmas and New Years. Other big greeting card dates are Valentine's, Mother's Day, and Easter, in about that order. Aside from Christmas, however, the big bulk of the business is in cards to celebrate birthdays, graduations, marriages, and confirmations.

• **A Business in the 60's**—The greeting card reportedly owes its popularity in this country largely to the efforts of a Boston lithographer, Louis Prang, a refugee from the German revolution of 1848. Cards became a commercial business in the 1860's, a big business around 1908. Gibson and Rust Craft, two manufacturers who started in about then, are still going strong.

Although planning and production of cards for holidays like Christmas and Valentine's Day usually is completed from nine to eighteen months ahead, manufacturers can bestir themselves and turn out a topical card almost overnight.

One of the biggest scoops ever scored in the industry was Rust Craft's. The company began work on a special three-color card when Lindbergh started his flight to Paris, had it on its way to dealers before he landed. It read:

"Right out of the blue, Happy Birthday to You:

I couldn't fly to Paris, Even If I wanted to, But today my happy wishes, Are Flying Straight to You."

• **Sources of Sentiment**—Some greeting card messages are taken from such masters of popular poesis as James Whitcomb Riley, Edgar A. Guest, and Carrie Jacobs Bond. Most of them are turned out by permanent members of manufacturers' staffs. A few are contributed by small-town poetesses at the almost-standard rate of 50¢ a line.

Last year, manufacturers, seriously worried by the impending paper shortage, banded together in a trade association, the Greeting Card Industry. The association hired the public relations firm of Edward L. Bernays to conduct and publicize a survey of the psychological needs fulfilled by greeting cards.

• **Industry's "Case"**—Bernays' study (drawn from 800 door-to-door interviews in 15 cities and towns) points out that, whereas greeting cards account for only about one-half of one per cent of America's total annual consumption of paper, they help to overcome anxiety, loneliness, and sorrow; give the inarticulate individual a means of self-expression; help to signalize religious and national holidays; act, to some extent, as a curb on inflation, since they frequently take the place of a more expensive present.



—And today, Happy Birthday!

Why only
100
PER HOUR?



Courtesy The Jacobs Manufacturing Co.,
Hartford, Conn.

HARDEN **700** PER HOUR



with this new heat-treating process!

● Heat-treating outputs are being multiplied two-fold, three-fold and more by TOCCO—the new simplified electric induction heat-treating process! In fact, output of the drill chuck part shown above was *multiplied seven-fold!*

Where former methods required many man-hours, several operations and much scattered equipment, the TOCCO machine performs the complete hardening operation in a *matter of seconds*—with a push-button start and automatic precision control. *Doesn't require skilled labor.*

Where former methods heat-treated the whole part, TOCCO *localizes hardening* at the wearing surface—keeps the core tough—minimizes distortion, *eliminates straightening and rejects.*

Can be installed in assembly line because it is so cool, clean and compact (only 7 ft. x 5 ft., maximum).

For post-war production, too. Just change work fixture to adapt to peacetime products.

See how TOCCO can *speed up* and *improve* your output!

THE OHIO CRANKSHAFT COMPANY
Cleveland, Ohio

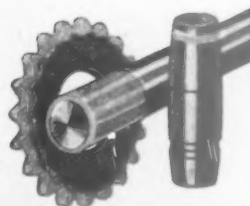
**SPEEDY ELECTRIC HEAT IS GENERATED WITHIN
THE SECTION TO BE HEAT-TREATED**



JUST PUSH A BUTTON

TOCCO

World's Fastest, Most Accurate Heat-Treating Process



Shearlings Go Up

That's true in more ways than one, for use in aviators' uniforms is what led WPB to encourage higher prices.

U. S. aviators do their stuff at thin and icy altitudes as high as six miles above the earth. Recognizing how much depends on these warriors, the War Production Board has taken steps to protect them from subzero temperatures. That means providing flying uniforms lined with shearlings.

• **For Military Use**—Shearlings are sheep skins with short wool still on. WPB began its drive by prohibiting the pulling of wool from fresh skins when such wool was one inch or less in length. It backed this move by reserving all shearlings for military use, by inducing the Office of Price Administration to encourage production by removing price ceilings on such skins. And a bit later it announced a program aimed at timing the shearings of lambs and yearlings in Texas and California so that hides would have the proper length of wool at slaughtering.

The big sheep states of Texas and California have mild climates which permit shearings earlier than other big grazing areas. WPB is appealing to the patriotism of the sheep raisers. They are asked to shear many animals which normally would be marketed with wool too long for flying suits, and to shear soon enough to permit a proper growth of wool before slaughter time, which means slaughtering about three weeks after shearing.

• **Up to the Sheep Men**—Details will be left to Texas and California sheep men. Results in these states probably will determine whether the plan will be extended to other regions.

Ordinarily the price of wool vs. the

price of shearlings determines whether skins are marketed with or without the wool. Removal of ceilings has tilted the scale decidedly in favor of shearling production. In the past few weeks, price per skin of No. 1 shearlings has risen from \$1.90 to \$2.25, No. 2's have gone from \$1.30 to \$1.90, and No. 3's from 75¢ to \$1. The government is most interested in No. 2's, which have the required length of wool ($\frac{3}{8}$ to $\frac{1}{2}$ in.) for flying suits.

• **15 Skins per Flier**—The WPB hopes to obtain an additional 2,000,000 skins by the Texas-California program. Here is a measure of the strain that the vast expansion of the flying services has placed on supplies. The aviator's jacket, pants, helmet, and boots must be shearling-lined. This means about 100 sq. ft. or 15 skins per flier.

In normal times, U. S. demand is for about 6,000,000 shearlings annually. Domestic sheep produce about half of these. Australia supplies some 1,500,000, the rest coming from South Africa and South America. Ordinarily the skins are used in sheep-lined clothing for outdoor workers and sportsmen. Retail stocks of such civilian garments are said to be low.

The shearing situation is complicated by British control of overseas skins. Empire exports are rationed by the British wool board. Since London must conserve its own stocks, it is estimated that the board will reduce empire shipments to the U. S. by 30% this year.

• **Encouragement**—WPB hopes that this and other hurdles will be surmounted by its frank encouragement of high prices and the companion drive for timed shearings. Big independent in the shearlings field is J. Laskin & Sons, New York, which buys the raw skins, tans them, and then markets them to garment manufacturers. It competes with the big packers. Armour shearlings are tanned and sold by its subsidiary, Winslow Bros. & Smith Co. Swift's subsidiary in the same field is the A. C. Lawrence Leather Co.

Recording Blues

WPB's order cutting use of shellac ends the sweet music of prosperity enjoyed by makers of disks in recent years.

"Don Nelson done told me
To cut down production;
He called me from Washing—ton.
He said we were hoarding
Shellac for recording.
But now the hoarding is done.
Don Nelson gave orders
And here's what he meant
Just thirty per cent—of tunes to record."

Thus, to the mournful tune of "Blues in the Night," runs a parody, "Shellacking Blues," by song writers Vic Mizzy and Irving Taylor, published last week in *Variety*, trade journal of the amusement industry. It is one of many evidences that phonograph-record manufacturers have been left high and dry by the War Production Board's order slashing their use of shellac to 30% of 1941 levels.

• **What It Means**—In recent years disk-makers and dealers have chorused hal-lalujahs as unit sales have mounted from less than 10,000,000 in bleak 1932, to 40,000,000 in 1939, to 60,000,000 in 1940, to a staggering 100,000,000 or better—some guess 120,000,000—in 1941 (BW—Sep. 13 '41, p48).

Now manufacturers and dealers are singing a different tune—one that's being dolefully echoed by everyone with a stake in recorded music, from lovers of jive and grand opera to the sheet music publishers, who depend on disks to plug their tunes and who expected, in addition, to collect a total of over \$2,000,000 in royalties on recordings this year.

• **As Regards Substitutes**—Vinylite plastic is the only proved satisfactory substitute for shellac as a base for recordings. It has long been used for radio transcriptions. Cost has ruled out its use in popular disks. Currently, shellac costs around 20¢ a lb. (it cost 8¢ before the war), and it is mixed with various fillers which reduce the price still further. Large buyers pay 40¢ a lb. for Vinylite, and molding time is longer for Vinylite recordings, an extra factor in upping costs.

Even if price were no object, the supply of Vinylite plastic is limited. One estimate is that all the Vinylite available wouldn't take care of more than 25% of the record industry's needs. And the supply situation is even tighter on virtually all the other plastics which might be substituted for shellac.

• **Ground Scrap**—Most phonograph records contain a certain percentage of ground scrap from old records, usually dealers' trade-ins. Up to now, the percentage has been small; RCA-Victor has been using from 10% to 15% (BW

What's Happening to the Cost of Living

	Food	Clothing	Rent	Fuel, Ice, & Electricity	House Furnishings	Misc.	Total Cost of Living
August, 1939....	93.5	100.3	104.3	97.5	100.6	100.4	98.6
March, 1940....	95.6	102.0	104.5	100.6	100.5	100.8	99.8
March, 1941....	98.4	102.1	105.1	100.7	101.6	101.9	101.2
April	100.6	102.4	105.4	101.0	102.4	102.2	102.2
May	102.1	102.8	105.7	101.1	103.2	102.5	102.9
June	105.9	103.3	105.8	101.4	105.3	103.3	104.6
July	106.7	104.8	106.1	102.3	107.4	103.7	105.3
August	108.0	106.9	106.3	103.2	108.9	104.0	106.2
September	110.8	110.8	106.8	103.7	112.0	105.0	108.1
October	111.6	112.6	107.5	104.0	114.4	106.9	109.3
November	113.1	113.8	107.8	104.0	115.6	107.4	110.2
December	113.1	114.8	108.2	104.1	116.8	107.7	110.5
January, 1942....	116.2	116.1	108.4	104.3	118.2	108.5	112.0
February	116.8	119.0	108.6	104.4	119.7	109.4	112.9
March	118.6	123.6	108.9	104.5	121.2	110.1	114.3

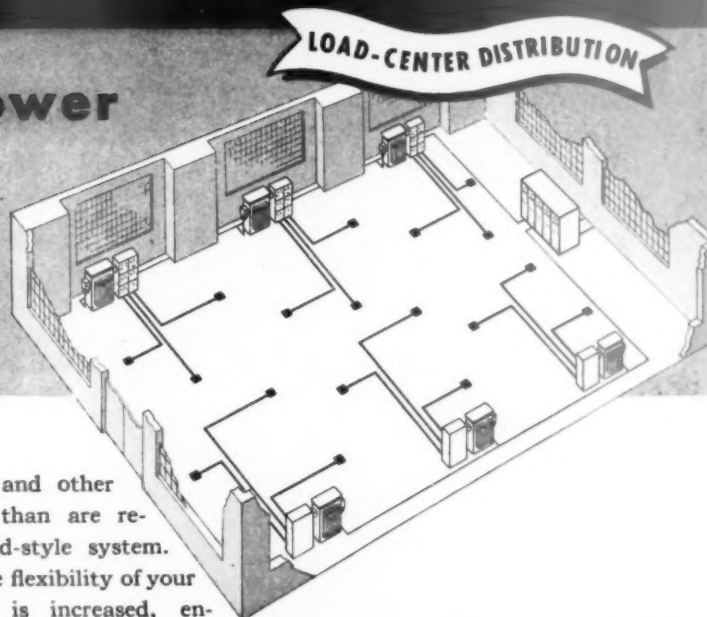
Data: U. S. Bureau of Labor Statistics; 1935-39=100.



BUILDING A NEW PLANT OR PLANT EXTENSION?

This Better Electric Power System Will SAVE

- ★ Tons of Vital Materials
- ★ Weeks of Installation Time
- ★ Thousands of Dollars



LOAD-CENTER DISTRIBUTION

HERE'S the answer to the pressing problem of providing for reliable electric power distribution quickly and economically—the load-center system.

Using G-E load-center unit substations, you can install a *better* distribution system in several weeks less time, at lower over-all cost, and with

far less copper and other vital materials than are required for an old-style system. Furthermore, the flexibility of your electric system is increased, engineering and planning time is reduced, and purchasing is considerably simplified.

In the load-center system, power is distributed at high voltage to compact, properly co-ordinated load-center unit substations located near the center of electrical-load areas. There it is transformed to low, utilization voltage and distributed to the load via short secondary feeders—thus avoiding the high cost and voltage drop of long, heavy low-voltage feeders from a distant substation.

SHORTER TIME

Using G-E load-center unit substations and G-E interlocked-armor cable a load-center system can be installed in six to eight weeks less time than an old-style, piecemeal system. Entirely factory-built unit substations need merely be slid into position and connected; the interlocked-armor cable can be quickly installed, without ducts or conduit.

LESS MATERIAL

The great reduction in the quantity and size of the secondary cable means a considerable saving in copper—a vital need. Likewise, the smaller secondary circuit breakers conserve various other strategic materials for all-important war requirements. And interlocked-armor cable is a varnished-cambic rather than a rubber-insulated cable.

COST 20% LESS

Load-center distribution costs less because (1) the short, low-voltage feeders materially reduce the quantity of secondary cable required; (2) smaller transformers produce less short-circuit current, so that smaller, less expensive secondary air circuit breakers can be used. In a typical system, these economies result in a *saving of 20 per cent or more.*

Here's Where You Save!

Old-style System

\$56,500
25,000 lb
43,500 lb
25,000 lb

Cost
Copper
Steel
Other

Load-center System

\$44,500
13,500 lb
35,700 lb
23,700 lb

The above contemplates a typical 3000-kva "old-style" system with a single, large, "piecemeal" substation and long secondary feeders consisting of rubber-insulated cable in steel conduit. The load-center system, also 3000 kva, consists of individual load-center unit substations and varnished-cambic-insulated interlocked-armor cable.

FOR THE ENTIRE STORY

General Electric Co., Sect. 302-4
Schenectady, N. Y.

Send me your bulletin GEA-3758, "Load-center Power Distribution." I want to know how the load-center system saves time, money, and vital materials.

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888-4-5888

GENERAL ELECTRIC

General Electric and its employees are proud of the many awards of Excellence made to GE for the manufacture of great products.

—Feb. 14 '42, p. 52). The amount of scrap undoubtedly can be increased—maybe to 50% or better, to stretch shellac supplies. To get the needed scrap, both RCA and Columbia now are planning intensified campaigns for collection of old records. Decca is considering a similar move.

Record makers almost certainly will

raise their prices—if they can get the increases past the Office of Price Administration. Guessing in the trade is that, unless OPA cracks down, 35¢ disks will shortly go to 50¢. More expensive records—mostly classics—may not go up proportionately, since they're already priced to allow for a smaller volume and a bigger profit margin. Manufacturers

already are cutting down on the number of their releases. An orchestra leader who got perhaps 40 "sides" (industry term for a recording of a single piece on one side of a disk) last year, will be lucky if he gets 10 this year. New artists and those of dubious popularity will have to wait until the end of the war to prove their worth.

WAR BUSINESS CHECKLIST

Washington's Significant Orders on Materials and Prices

• **Telephones**—Revision of Order L-50 forbids installations of new telephones except for essential uses. New pay stations are forbidden if the installation would require additions to exchange line plant. The order also forbids further installation of residence extensions except for essential uses.

The list of essential users includes domestic and foreign governments, public utilities, the press, health services, burial services, philanthropies, churches; food processing, storage, and distribution; suppliers of the federal government or firms operating under priority ratings; building managers in new housing developments.

• **Textiles**—Textile mills are required (under Order L-99) to convert to production of bag osnaburg 20% of all looms now working on bed tickings, cottonades and suiting coverts, colored yarn suitings, denims, pin and hickory stripes and checks, drapery, toweling, and all looms now working on any type of osnaburg.

The mills must convert to bag sheeting 40% of looms now on outing flannels or other napped fabrics except canton and work shirt flannels and blankets; 40% of looms on soft-filled sheetings; 50% of those on Class C (unbleached) sheeting; and all looms now on Class A and B sheeting. Bag osnaburg and sheeting may only be sold on priority ratings. Forthcoming orders will require further conversion to work clothing fabrics.

Virtually every product of the cotton textile industry will be under price ceilings on May 4, when Regulation 118 becomes effective. The action applies chiefly to manufacturers' sales (a separate order affects converters and wholesalers) and fixes last July 21–Aug. 15 as the base pricing period. Carded grey and finished cotton goods not covered by previous schedules are made subject to the new maximum prices.

Products covered by Regulation 118 include such finished textiles as bedspreads, blankets, towels, gingham, table cloths, napkins, cottonades, corduroys, diapers, whipcords, and flannels. Items of "unfinished" classification that are affected include industrial fabrics, ducks, shirting, twills and drills, sateens, gabardine, and repps.

Production of foundation garments containing elastic fabric is cut by Order L-90 to 75% of the rate that was maintained during the first quarter of last

year. For various types of garments, the order establishes specifications which have the effect of reducing elastic fabric content by about 50%.

Amendment of Order L-85 permits the sale of women's and children's ensembles which were in process Apr. 9. Various technical changes are also made.

• **Machinery**—Restrictions of Order L-83 on production of industrial machinery have been waived until May 15. Restrictions on deliveries and acceptance of orders remain in force.

• **Chinaware**—Manufacturers' prices of vitreous chinaware are frozen at Oct. 1–15 levels by Regulation 116 and prices of semi-vitreous ware at 5% above levels of that date.

• **Rail**—Sale of used rail of relay, reroll, or scrap grade is forbidden by Order L-88 except upon authorization from WPB. Anyone receiving any footage of new replacement rail must set aside for allocation 15% of the footage of used rail within 30 days, 15% in 60 days, 20% in 90, and 40% in 150 days.

• **Scrap**—Segregation and grading of all scrap containing more than 0.5% nickel by weight is required by order M-6-c. Sale of such scrap may only be made to melters receiving allocations of nickel or filling A-1 rated orders or to dealers. Everyone possessing scrap with more than 500 lb. of nickel content at the end of any month must report to WPB.

• **Enforcement**—Anderson & Sons are forbidden for six months to receive or deliver any aluminum, copper, or stainless steel, must stop processing these materials and dispose of their inventory. Order S-19 charges that they delivered aluminum products for unauthorized purposes and used misrepresentation in assignment of ratings.

All priority assistance is removed for six months from Acme Chemical Co. and Rona Chemicals, both of New York City. Orders S-41 and 42 charge that the companies illegally disposed of chemicals obtained by Acme with priority assistance.

• **Other Price Actions**—A 5% increase in manufacturers' prices of steel screen cloth is permitted by amendment of Schedule 6. . . . A permanent price regu-

lation (No. 117) governing price of used egg crates replaces Temporary Regulation 2. Methods of classification are changed. . . . Exceptions to Schedule 67, machine tools, permit Henry & Wright Mfg. Co. of Hartford, and Cleveland Automatic Machine Co. to raise certain prices to compensate for subcontract costs. . . . A 16% increase in the price of new passenger tires is permitted by amendment of Schedule 63 to cover costs of the tire return plan.

• **Other Priority Actions**—Restrictions of Order L-31 on deliveries of natural gas have been extended to parts of Iowa, Kansas, Minnesota, Nebraska, Oklahoma, and South Dakota. . . . Amendment of Order L-78 permits continued manufacture of fluorescent fixtures under 30 watts with materials ordered Apr. 2 and on hand Apr. 20 or obtained under the Production Requirements Plan. Manufacture of larger fixtures is forbidden after May 16 except on A-2 or better ratings. . . . Fishing-tackle manufacturers are forbidden by Order L-92 to use metal, plastic, and cork after May 31, except that hooks may be made at half the 1941 rate. . . . Ratings from A-8 to A-1-a are made available by P-126 for maintenance and repair of various types of air conditioning and refrigeration equipment. . . . Amendment of L-26-a forbids manufacture of rubber-tired combines after July 31 and of other rubber-tired farm equipment after Apr. 30. . . . Deliveries of iron and steel products may only be made on A-10 or better ratings after May 15, by amendment of M-21, except that warehouses may deliver nails, bail ties, and small pipe as well as carbon steel for repair and maintenance. . . . M-137 forbids the use of benzene in motor fuel.

• **Sole Leather**—Finding that allocation of 80% of all heavyweight sole leather to the armed forces and lend-lease was inadequate, WPB orders all such leather set aside in Amendment No. 2 to M-80.

• **Storage Batteries**—Production of batteries for passenger automobiles and light trucks is prohibited as of Apr. 30 except for specified minimum amp. hr. capacities (L-4-B Supplementary). Retail sales may not be made unless the purchaser turns in a used battery. Inventories of producers, retailers, jobbers, and warehouses are restricted.



LUMARITH PARTS

REG. U. S. PAT. OFF.

HELP KEEP THIS TRAINER "IN THE BLUE"

Lumarith is aloft constantly these days . . . adding strength, subtracting weight and reducing cost in scores of 'plane-parts from the spinner to the tip of the tail.

This is one of the more exciting ways in which Celanese Celluloid products and experience are serving the war effort. Other applications, less publicized but equally vital, extend to practically every war industry, and the list grows larger day by day.



TO MANUFACTURERS WORKING ON WAR ORDERS

As the founder of the plastics industry, we have experience records and other data which we are eager to share with other companies in the "Victory business." On contracts where plastics are required, or where plastics can speed production, the knowledge of our engineers is at your disposal. Address War Materials Division for quick identification and attention.

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Celanese Celluloid Corporation, 180 Madison Ave., New York City (a Division of Celanese Corporation of America) . . . Sole Producer of Celluloid* (cellulose nitrate plastics and dopes) . . . Lumarith* (cellulose acetate plastics and dopes) . . . Lumarith Protectoid* (transparent insulating, laminating and packaging material) . . . H-Scale* (synthetic pearl essence) . . . Lindol* (plasticizer and lubricant additive) . . . Samson* and Safety Samson* Film Bases . . . and Vimlite* (shatterproof window material) . . .

*Trademarks Reg. U. S. Pat. Off.

Strange Marriage

Bonneville-Grand Coulee project seems to have reversed a policy in transmission deal with two utility companies.

Quite generally overlooked in recent developments in connection with the Northwest's giant federally-financed waterpower projects, Bonneville and Grand Coulee, was the significant announcement (BW-Mar.28'42,p8) by Dr. Paul Raver, administrator of the two Columbia River projects, that he is making interconnection arrangements with two private utilities, Washington Water Power Co. and Pacific Power & Light Co. to supply "excess energy to the companies . . . to conserve water in their storage reservoirs and thus provide maximum generating capabilities for the region's peak-load periods."

• **Policy Reversal?**—The move generally is being interpreted in the Pacific Northwest, correctly or incorrectly, as a reversal of policy by the Bonneville administration toward the proposal of the private utilities for a northwestern power pool which, they claimed, could add the



A third generator (nine ordered) for the Grand Coulee project is now on the line, but authorities are praying

for early deliveries of one or two more to keep up with increased power demand from war industries.

equivalent of 100,000 kw. of generating capacity to the area.

Last January, Dr. Raver indicated he saw no need for such a pool. Yet, through the interconnections announced last week, the two private companies will transmit Bonneville energy to Bonneville's public agency customers and the arrangement is reciprocal.

One strong reason for the agreement is that Bonneville, like all electric utility systems, is up against a limitation of new transmission facilities due to materials shortages. Any new war production plants added to the Columbia River public power area probably would have to be located close to the two dams because of this restriction in the building of new transmission lines. The tie-in with the two private companies relieves this condition somewhat.

• **New Steel Capacity**—Meanwhile, Bonneville added another war customer last week, the Oregon Electric Steel Rolling Mill, Inc., of Portland, which will supply about 35,000 tons of steel annually (from scrap) for shipyards in the Portland area. The RFC O.K.'d a loan last week to finance construction of the plant, which will take about 10,000 kw. of Bonneville power. Capacity will be doubled later.

War production demands on the two Columbia River power projects, which have developed rapidly during the last few months, are shown in the accompanying table. The 3,000 kw. shown as going to the Pacific Power & Light doesn't refer to the recent interconnection arrangement with that company, but to a previous minor contract with the firm.

• **Raver Wants Generators**—Incidentally, Dr. Raver is trying to convince Washington, D. C., authorities that generators, now nearing completion for other power projects, should be reallo-

cated to the Columbia River system on the theory that such equipment should go where it's most needed.

Filling Export Gap

U. S. Rubber, unable to push regular line, makes deal with rayon makers to handle yarn through Latin outlets.

Washington requires producers of viscose and acetate rayon yarn to set aside 4% of their output for shipment to "other American republics" (BW-Mar.21'42,p66), but provides no means for exporting it. This poses a problem for rayon producers, most of whom have done little or no exporting in the past and have no representatives below the border.

• **Outlets Available**—The United States Rubber Co. is in an opposite position. It has the means—a far-flung and long-established distribution setup throughout Latin America—but it can no longer ship tires, hot water bottles, and sundry rubber products. To bring the means and the goods together, U. S. Rubber has reached an agreement with most of the major rayon companies whereby it will handle their Latin American exports.

American Viscose Corp., Celanese Corp., Tennessee Eastman Corp., and Tubize Chatillon are providing U. S. Rubber with yarn for export. The company may also handle some du Pont yarn, supplementing du Pont's own distribution in Latin America.

• **How It Works**—The arrangement works like this. U. S. Rubber places orders with Latin American companies which hold the required certificates of necessity, issued by the southern repub-

BONNEVILLE'S BOOM

Not many years ago, the Pacific Northwest wondered where the Bonneville-Grand Coulee project on the Columbia River between Spokane and Portland would sell its tremendous electric energy output. Today even the bitterest opponent of government ownership grudgingly admits that it's a good thing for the war effort that this gigantic power pool is available to speed industrial production, particularly of much-needed metals.

Within the last few days the third generator has been installed at Grand Coulee, bringing the project's capacity above 625,000 kw. (BW-Mar.21'42,p29). A little-known story of the vast industrial development already drawing on this hydroelectric development is told by this tabulation:

Users of Power (Fall of 1942)	Amount (in kw.)
Public agencies	28,000
Private utility*	3,000
Camps, cantonments	25,000
Aluminum	459,000
Shipbuilding	34,000
Calcium carbide	2,000
Chlorates	3,000
Ferro alloys	13,000
Magnesium	50,000
Ferro silicon	25,000
(Early in 1943)	
Phosphorus	24,000
Aluminum fabrication	59,000
TNT	12,000
Aluminum	70,000

* Pacific Power & Light Co.



England's Report on Sprinkler Fire Protection!

From the scene of history's worst fire perils comes an amazing report.

It is an authentic record of the performance of automatic sprinkler fire protection in actual air raids... and it shows that *no premises fully protected with sprinkler systems and dependable water supply have been destroyed by incendiary bomb fires in England!*

250 incendiary bomb "incidents" in sprinkler-equipped buildings throughout industrial Britain form the basis of this report. In 12 closely-printed pages, typical buildings, their protective equipment, bomb

locations and extent of damage are described in detail. A summary of all "incidents" is included.

Reprinted for the first time in this country, this bulletin throws new light on protective measures against incendiary bombings on our own continent. It is offered to aid you in protecting your plant or building!

Write for complimentary copy of this timely study, now made available by Grinnell... the pioneers and consistent leaders in automatic sprinkler fire protection. Grinnell Company, Inc., Executive Offices, Providence, Rhode Island.



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CONTENTS

Sprinklers Completely Successful in 82% of Incendiary Bombing "Incidents."

Air Raid Fires: High Explosive Compared with Incendiary.

One Plant... Two Enemy Visits - Five Fires-Extinguished by Sprinklers.

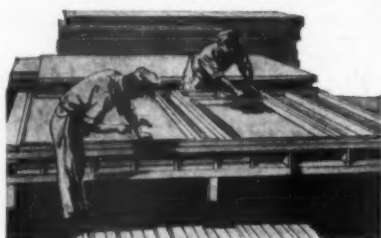
Sprinklers Promptly Saved Twice in Fourteen Days.

(Also other case histories and detailed facts that are highly pertinent to building protection in England.)



The job of building 5000 HOUSES IN 5 MONTHS

A short time ago, Portsmouth, Va., was in dire need of housing. Shipyards, with unprecedented war orders, were hiring new thousands of workers. But Portsmouth had no place to house them. Today, houses are being readied for occupancy at the rate of 60 a day—and the shipbuilders will soon be living in new, comfortable homes.



To produce this modern construction miracle, countless problems had to be solved. New techniques were needed. Homasote Company—pioneers in prefabricated housing since 1935—had these techniques, backed by the skill and experience gained from millions of dollars of pre-war construction. So 5000 houses will be finished in Portsmouth—five months from the day they were started!

But the most significant facts about Homasote Precision-Built Homes are even more important than speed. This method of construction means new

low costs which will open wide new markets for the housing industry. Yet there is no sacrifice of quality. Homasote Homes are machine-perfect in every detail, doubly insulated, and demountable if required. Homasote Homes are not stock houses. They may be of any size or design to fit any housing problem.

When the present emergency is over, fabricating plants throughout the country will supply Homasote Homes—for employee housing, for slum clearance, for large-scale realty developments, and many similar projects. Write for complete information. HOMASOTE COMPANY, Trenton, N. J.



BANKERS . . . Form an "Own-Your-Own-Home" Club for saving the down payment—to assure you of ample mortgage business after the war. Write us for complete details.

H O M A S O T E
Precision-Built
H O M E S

lies in cooperation with our State Department and Board of Economic Warfare to control the allocation of limited materials and shipping space. The rubber company then purchases from producers the raw yarn to fill the orders. The producers sell to the rubber company at the same prices offered to their regular jobbers.

U. S. Rubber sends the yarn to the throwsters for finishing, sets up competitive prices under export ceilings, and finally realizes about a 20% to 25% profit on the finished yarn.

• **By Rail to Mexico**—Up to Apr. 1, U. S. Rubber had received orders for 823,000 lb. of yarn from buyers with certificates of necessity. Rail shipments to Mexico already are under way. Shipments by boat to other republics are waiting on the allocation of shipping space.

Estimates are that the rayon yarn which the government requires producers to set aside for Latin America will add up to some 15,000,000 lb. yearly. With the exception of Brazil, which is self-sufficient in yarn production, and Argentina and Chile, which are partially so, buyers in the southern republics are falling over themselves to get their hands on it.

• **Shipping Angle**—Hitch is that, while the United States requires producers to set yarn aside for export, it guarantees no shipping space for it. And shipping space is now pitifully limited. U. S. Rubber finds an additional complication in the fact that many would-be yarn buyers do not know how to go about getting certificates of necessity and some Latin American countries have not yet ironed out the details of granting them.

Despite these difficulties, the company has set up a rayon division as part of the U. S. Rubber Export Co., Ltd., and hired August Kops, former president of the Textile Salesmen's Assn., to run it. The activities of the new division already have extended to export of such accessories to its yarn business as bobbins and spools, chemicals and dyes.

• **Other Lines**—U. S. Rubber also is investigating the possibilities of taking on several other lines—notably shoes and office stationery—for export. The company's export officials believe that the wide variety of items in its own line has equipped its dealers to handle almost any product. Even before the rubber pinch, U. S. Rubber filled out its own export line with some products purchased from other manufacturers—auto accessories, mechanical goods, paints.

TATTOOING LOOKS UP

With Pearl Harbor came a boom for tattoo artists in San Diego, Long Beach, and Los Angeles, and also a surprise—soldiers are having more pictures pricked upon their arms than sailors ever did. Tattoo artists cannot explain it. They

know that more customers are coming than in any time the past 20 years. Also, that the demand is for inexpensive designs—names or Social Security numbers, small daggers (50¢), ships, flags, initials in a heart, and spread eagles (\$1 to \$3). Coils of a serpent attract great attention but few customers at \$125.

Tattooing is mostly a machine job these days. With rapidly vibrating needles in a tool like a dentist's drill, it's quick and relatively painless. Some of the tattoo artists also manufacture the equipment, but find difficulty in getting the small motors and castings. There also are shortages in needles, pigments and supplies.

Add Hetch Hetchy

San Francisco's fight with Ickes over Sierra power may be solved by aluminum plant which will use disputed juice.

San Francisco's 30-year-old Hetch Hetchy power problem is on the verge of solution.

• **Power for Aluminum**—The thing that promises the end of the battle which Ickes has waged with San Francisco over Hetch Hetchy is a government announcement that an aluminum plant, to be built "somewhere in California's Central [San Joaquin] Valley," will need all of the city-owned project's present capacity and more. The city has sold this power from the High Sierras to the Pacific Gas & Electric Co. for distribution through its system to San Francisco customers.

Secretary Ickes has contended that the agreement between the city and private utility violates the Raker Act, under which Congress granted the municipality the right to build the Hetch Hetchy project on public lands. The Supreme Court has upheld the secretary's contention, but the city's voters have resolutely refused to sanction a bond issue for the purchase of the P.G.&E. facilities over which Hetch Hetchy power is distributed (BW—Nov. 8 '41, p8).

• **A Way Out**—Sale of power to the government for the aluminum plant would mean cancellation of San Francisco's contract with P.G.&E., which has enough surplus power to meet the city's demands. The proposed aluminum plant would take not only all of the city's present 84,000-kw. capacity at the Moccasin Creek powerhouse but also 17,000 kw. from another \$1,500,000 powerhouse to be built by the city at Red Mountain Bar.

If the deal goes through, the city presumably will be complying 100% with the Raker Act as interpreted by the secretary and the federal judiciary.

What! Glue Short, too?



BUT...

modern chemistry
is helping to "stretch"
available supplies

GLUE, like many another product of unpublicized importance, is a wartime essential. Uncle Sam needs glue in vast quantities—quantities beyond the reach of existing raw material supplies.

A glue shortage became inevitable—but not incurable. Research chemists have found a promising solution in Arlex, a versatile polyalcohol developed in the Atlas laboratories.

By introducing Arlex into glue mixtures, they produced greater quantities of adhesive with *less* animal glue base—enabling every ounce of glue to cover more surface with adhesive.

This is another example of modern chemistry's contribution to war production—a case where science, through the use of an alternate product, makes a "shortage" material go farther, and thus serve the war effort more effectively. Atlas research men are striving constantly to stretch the effectiveness of available materials—not only in connection with Atlas chemicals, but in fields served by other Atlas products: industrial explosives, purifying carbons, coated fabrics and finishes.

Maintaining the supply of these products—in addition to working with Government on direct war operations—is a tremendous task. But cooperation has licked tough problems before. We aim to make it work again.

ATLAS POWDER COMPANY, WILMINGTON, DELAWARE

Offices in Principal Cities

ARLEX—Reg. U. S. Pat. Off.

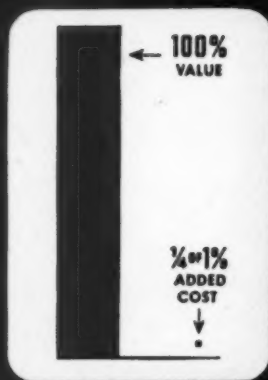


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Activated Carbons

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The most durable L. L. Brown ledger, instead of ordinary paper, increases accounting costs only 1/4 of 1%, yet guarantees 100% protection against wear. Your printer will be glad to furnish you with L. L. Brown papers.

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L. L. BROWN'S LINEN LEDGER

100% New White Linen & Cotton Fibers

ADVANCE LINEN LEDGER

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100% New Cotton Fibers

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85% New Cotton Fibers

GREYLOCK LINEN LEDGER

85% New Cotton Fibers

ESCORT LEDGER & MACHINE POSTING

100% New Cotton Fibers

Permanent
Grades



THE WAR—AND BUSINESS ABROAD

Spring Strategy

Hitler masses to drive for Caucasus oil as Japanese advance in Burma. Aim is to cut off aid to Russia and China.

Feverish maneuvering is going on behind the lines in Europe and the Far East and on the economic battlefronts in Latin America.

While the last huge caravans of supplies for Hitler's vast spring offensive in Russia roll up to the front, Nazi forces are making jabs at the Soviet lines—trying to find soft spots through which they can launch their new blitz.

• **The Key Front**—Keep an eye on the Ukraine, for though battles are likely to flare from Murmansk to Taganrog, the full force of the Nazi attack is almost sure to be in the south in a desperate effort to capture Russia's great oil fields on the Caucasus isthmus. Without this oil, the Soviet Union cannot for very long maintain even defensive operations on a large scale. And if the oil goes, any major offensive in the east against the Germans is out of the question after this year (BW—Mar. 14 '42, p. 34).

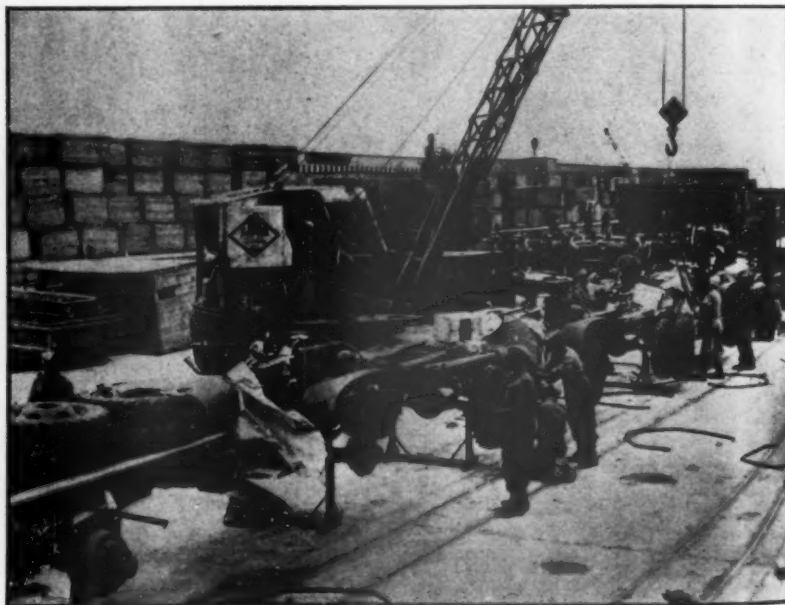
The massing of German equipment on the Russian front for this vital new

offensive is in part responsible for the comparatively small opposition that British raiders have met in their steadily repeated attacks on the great airplane-building center at Rostock and on the huge Skoda Works, the biggest single industry in the old Czechoslovakia and one of the best-equipped munitions plants in all Europe.

• **Raids Can't Thwart Plans**—Nevertheless the United Nations will have to step up both the number and the size of these raids considerably before the Germans will allow them to interfere with their plans on the eastern front. Axis strategy is framed on a grand scale, and the stakes in southwestern Russia—both in immediate spoils and long-term plans—are too big to abandon for anything short of a serious invasion effort in the west.

It is no coincidence that Japan is simultaneously pushing its Burma campaign with feverish haste. It is becoming increasingly obvious as time passes that the Axis plan for this year is to try to cut off Russia and China from their partners in the West. Chungking's last tenuously-held supply routes to the west are the famous but not too serviceable Burma Road and the Assam Road, a new highway from India to China which is still under construction.

• **Need for Speed**—Tokyo stepped up its Burma drive this week for three main reasons: (1) To beat the monsoon rains



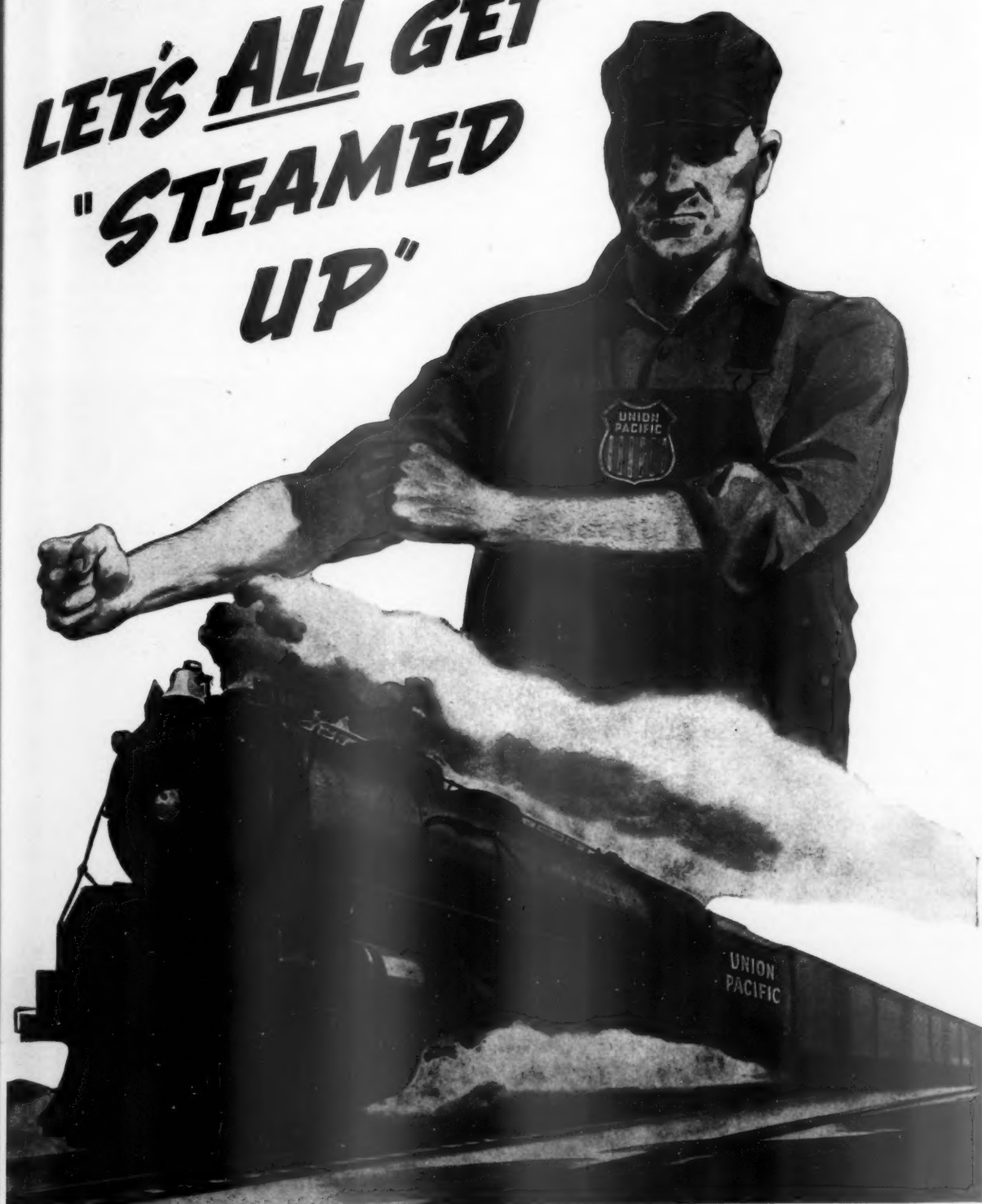
U.S. TRUCKS TO MIDDLE EAST

While arguments continue in Congress relative to which battlefield should get what supplies, American-

built trucks continue to arrive in the Middle East where they are unloaded by American-built hoists, uncrated, and made ready for service on a fresh-air assembly line by American soldiers.

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**LET'S ALL GET
"STEAMED
UP"**



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**THE RAILROADS ARE THE FIRST LINE OF DEFENSE
"KEEP 'EM ROLLING"**



OBSOLETE compressors cannot be tolerated in War! If your old air unit uses excessive electric power . . . replace it now with a Wayne. If it wastes man-hours through frequent air failure . . . you can't afford to run it another day. A new Wayne "Guaranteed Efficiency" Air Compressor will pay for itself through savings in electric current cost alone.

In many cases the addition of a few Wayne units in busier departments will eliminate the need of another big unit and speed up production amazingly. A Wayne Compressor engineer will gladly assist you in solving your air problems.



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FORT WAYNE, INDIANA
World's Largest Manufacturer of Gasoline Pumps

and get out of the swampy, steaming lowlands south of Mandalay and into the healthier and more easily-defended hill country in the north; (2) to cut off the Burma supply route to the Chinese and so set the stage to starve them into submission because of the lack of war supplies; and (3) to complete the occupation of the vital Burma oil wells. This will deprive China and India of their only important oil supply between the evacuated Dutch East Indies fields and the highly-important British-held wells in Iran, which will be desperately threatened if the Nazi drive in southwestern Russia succeeds.

• **No Desperation—Yet**—Don't be deceived by the popular interpretation that Hitler showed signs of desperation in his Reichstag speech this week or

that Japan is seriously troubled by public reaction to the American air raids last week. Both Berlin and Tokyo understand the gamble they are taking in attempting to squeeze the United Nations out of the Indian Ocean and then knock out the two bottled-up Asiatic enemies—Russia and China. Their actions will continue to be as bold as their plan. They may be perturbed by Russia's stubborn resistance, by such serious flanking moves as America's occupation of New Caledonia, and by the steady flow of American planes now arriving in Britain and Africa—but it is too late to turn back.

• **Strengthened Position**—Meanwhile, the United Nations are speedily rounding out plans to step up their economic warfare program, vastly increase their



LEND-LEASE ARRIVALS

British housewives are becoming familiar with American foods now that lend-lease supplies are being deliv-

ered in quantity. All supplies are rationed through regular trade channels. Note that the "ration price" is as prominently displayed as the cash-cost ticket on each item.



"Just a 30¢ Sorehead ...But he left me a \$10,000 Idea!"



"As he stalked out the door, I thought the fellow was just a '30¢ Sorehead.' But as I look back, it was one of the biggest mistakes I've ever made.

"True, his table check was just 30¢, soup, pie and coffee. But that's only half of it. What he said was something else again. 'Better take a good look at me, mister, 'cause you'll never see me again! This place is so noisy, if I ate three more meals in here, I'd have to take a rest cure in a sanitarium!'

"A crank? Well, maybe. But what he said set me thinking. After all, I'd built a good business, so I asked other customers what they thought. And am I glad I did! What I found out set me looking for a sound-conditioning expert next day.

"The job went to the Celotex Sound-Conditioning representatives here in town. I talked to them all, but this outfit really knew what it was all about. And they certainly did swell work—in a hurry, too.

"I'm not much of a believer in magic, but Acousti-Celotex certainly put the 'touch of gold' on this restaurant of mine. In round numbers it added \$10,000 to my gross. And if that '30¢ Sorehead' should break his promise and come in again, there's a steak dinner waiting for him 'on the house!'"

Celotex Sound-Conditioning serves business and industry in many ways. Noise quieting—while extremely important—is only one phase of our service. For the correction of any noise or acoustical problem, in any building of any type or size—consult the representative of the most widely experienced acoustical organization in the world—your Celotex Sound-Conditioning representative.



A CONSULTATION WITH ANY OF THESE CELOTEX SOUND CONDITIONING REPRESENTATIVES INVOLVES NO OBLIGATION

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NEW ORLEANS, LA. Acoustics & Specialties, Inc.
ARIZONA: PHOENIX, J. B. Mats
ARKANSAS: LITTLE ROCK MEMPHIS, TENN.
Acoustics & Specialties, Inc.
CALIFORNIA: LOS ANGELES The Harold E. Shugart Co.
OAKLAND, SACRAMENTO, SAN FRANCISCO, Western Asbestos Co.
COLORADO: DENVER Rocky Mountain Celotex Co.
CONNECTICUT: HARTFORD, C. A. Bader Co.
DELAWARE: BALTIMORE, MD. Hampshire & Decker, Inc.
PHILADELPHIA, PA. Jacobson & Company, Inc.
DISTRICT OF COLUMBIA: WASHINGTON, Hampshire & Decker
FLORIDA: JACKSONVILLE Acousti Engineering Co.
MIAMI, Aulford-Kelley Co., Inc.
GEORGIA: ATLANTA, Acousti Engineering Co.
IDAHOO: SALT LAKE CITY, UTAH Rocky Mountain Celotex Co.
ILLINOIS: CHICAGO, DAVENPORT, IOWA, James L. Lyon Co.
PEORIA, Hugh J. Baker & Co.
ST. LOUIS, MO., Henges Co., Inc.
INDIANA: EVANSVILLE, FORT WAYNE, INDIANAPOLIS Hugh J. Baker & Co.
CHICAGO, James L. Lyon Co.
LOUISVILLE, KY. Maintenance Supply Co.

IOWA: DES MOINES, CEDAR RAPIDS, DAVENPORT James L. Lyon Co.
OMAHA, NEB., Earl S. Lewis & Co.
KANSAS: KANSAS CITY, MO. Henges Company, Inc.
KENTUCKY: LOUISVILLE Maintenance Supply Co.
CINCINNATI, OHIO F. A. Kamp Flooring Co.
EVANSVILLE, IND. Hugh J. Baker & Co.
NASHVILLE, TENN. Len Herndon Co., Inc.
LOUISIANA: NEW ORLEANS, SHREVEPORT Acoustics & Specialties, Inc.
MAINE: BOSTON, MASS., Pitcher & Co., Inc.
MARYLAND: BALTIMORE Hampshire & Decker, Inc.
MASSACHUSETTS: BOSTON, Pitcher & Co., Inc.
HARTFORD, CONN., C. A. Bader Co.
MICHIGAN: DETROIT R. E. Leggett Acoustical Co.
MINNESOTA: MINNEAPOLIS, Insulation Sales Co.
MISSISSIPPI: MEMPHIS, TENN. Acoustics & Specialties, Inc.
MISSOURI: KANSAS CITY, ST. LOUIS, Henges Company, Inc.
MONTANA: BUTTE, Insulation Sales Co., Inc.
SPOKANE, WASH. Asbestos Supply Co.

NEBRASKA: OMAHA, Earl S. Lewis & Co.
NEVADA: SACRAMENTO, CALIF. Western Asbestos Co.
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NEW YORK, Jacobson & Co., Inc.
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NORTH DAKOTA: MINNEAPOLIS, MINN. Insulation Sales Co., Inc.
OHIO: CINCINNATI F. A. Kamp Flooring Co.
CLEVELAND, COLUMBUS, TOLEDO, PITTSBURGH, PA. Union Acoustical Co.
OKLAHOMA: OKLAHOMA CITY, TULSA Oklahoma Acoustical & Specialties Co.
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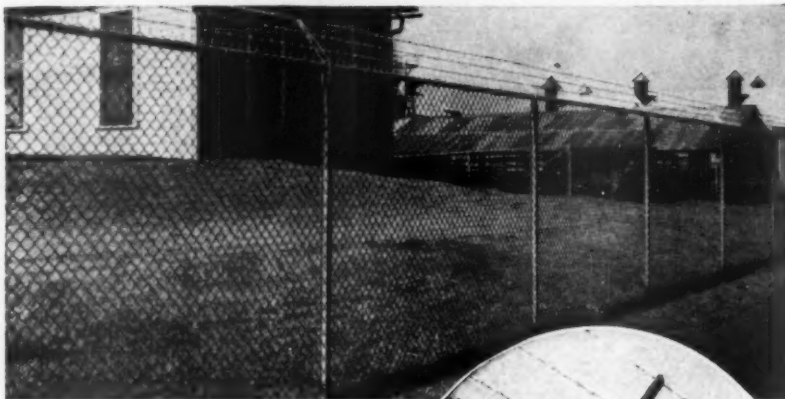
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HELPING INDUSTRY FIGHT THE *Spy Menace*



When spies and saboteurs know that to reach any door or window of your plant they must first deal with tough Cyclone Fence, they are far less likely to start trouble. For they know that getting in would be difficult, and the get-away almost surely spoiled.

Fortunately, most of America's vital defense plants have this valuable protection. Steel mills, refineries, aircraft plants, ship yards, power plants, countless factories making war supplies of every description. Day and night Cyclone is on the job, forcing everyone who enters or leaves the plants to pass through guarded gates. And today, the importance of uninterrupted production makes good fence more imperative than ever.



WHY MOST PLANT OWNERS CHOOSE CYCLONE FENCE

Perhaps it is the sturdiness of U·S·S Cyclone Fence. Perhaps it is Cyclone's reputation for long-life fence. Or the excellent work done by Cyclone's factory-trained erection crews. More likely, it is the combination of these factors that makes so many industrial purchasers choose Cyclone Fence as their best buy.

If your plant needs protection, get the facts about U·S·S Cyclone Fence. There's no obligation in letting us help you choose the right fence for your property and giving you an estimate. It is information you should have on hand. And, subject to priority restrictions, we will do all we can to build fence for you as quickly as possible.

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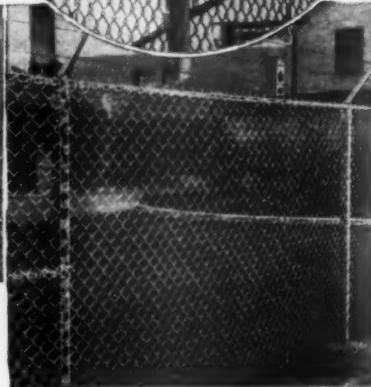
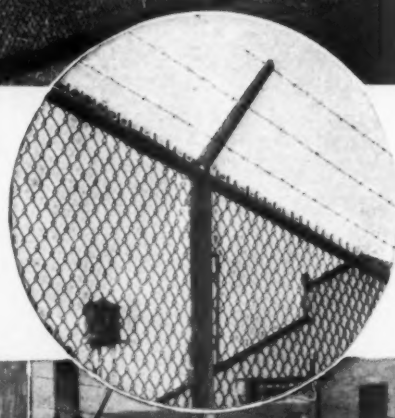
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Please mail me, without obligation, a copy of "Your Fence—How to Choose It—How to Use It." I am interested in fencing: ☐ Industrial; ☐ Estate; ☐ Playground; ☐ Residence; ☐ School. Approximately _____ feet.

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acquisition of strategic raw materials from abroad, and strengthen their position in the Middle East and the countries of Latin America.

Colonel Louis Johnson, President Roosevelt's special envoy to India, has revealed that American troops have arrived in India and that more are on the way. Included in the Johnson mission are Dr. Henry Grady, former Assistant Secretary of State and tariff expert, and a number of technicians whose job is to help modernize and speed up production in India's war industries.

• **Building Iranian Supply Lines**—Another sign that the United Nations are strengthening their position in the Middle East comes from Iran, supply base for troops in Iran, Iraq, and Arabia, and one of the routes over which supplies are now being sent to Russia (BW—Mar. 14 '42, p. 34).

Iran's one railway stretches across the country from the small port of Bandar Shahpur on the Persian Gulf to Iran's front on the Caspian Sea facing Russia. Bandar Shahpur's port facilities have proved entirely inadequate to handle the volume of traffic now arriving from Britain and the United States; so a second port has been developed 55 miles south of Bandar Shahpur and a rail spur laid to connect it with the main line. At the same time, another line has been laid across Iran to connect with the railroad which has long been in operation between the Iranian border town of Zahadin and Karachi, India. As a result, the country's railroad business has been quintupled since last fall.

• **On the Hemisphere Front**—In Latin America the United States is beginning to make progress with its hemisphere economic program, trimmed now to fit the materials and shipping shortages.

In Peru, the United States has agreed to buy 200,000 bales of cotton a year for the duration of the war but has warned the Peruvians that it expects them to cut their acreage at once and to begin raising flax, rice, and beans which are more needed now than cotton. To speed the shift to other crops, Washington has agreed that for each 1% reduction in the area planted to cotton after 1942, the base price of 10.69¢ a lb. will be increased 1%. On the other hand, for each 1% increase in the area planted the base price will be slashed 1%.

• **Argentina-Chile Deal**—In Chile, an Argentine trade commission began this week a survey of the country's trade needs and of the supplies it could provide Argentina. Under the slogan, "Sell More to Chile, Buy More from Chile," the Argentinians are trying to develop inter-American trade to replace overseas business cut off by the war. Both countries are seriously affected by the loss of markets in Axis and Axis-occupied countries and by the shortage of ship-

ping space to deal with the United States.

• **Alien Control in Brazil**—In Brazil, government officials prepared to take over Japanese cooperatives for the duration. These cooperatives handled an annual turnover of nearly \$20,000,000. All were directed by the Tokyo government. Some of them controlled exports and imports, banks, mines, cotton mills, and construction companies. In Sao Paulo alone there are nine Japanese agricultural cooperatives which handled 20% of the country's vast cotton crop and almost all of the potato and truck garden crops.

In Mexico, the Cities Service Co. came to terms with the Mexican government on its oil holdings and it looked as though the whole oil expropriation case would soon be settled.

Assist for Ottawa

Price control program of U.S. is expected to ease some of Canada's problems. Agreement on exchange may be one result.

OTTAWA—Official Canada closely watched Washington as it set the stage this week for an all-out price control program. Not only is the United States following the Canadian pattern but it is taking the step just when Canadian authorities were beginning to fear that uncontrolled prices south of the border might jeopardize the whole Dominion experiment.

Canada imports many items from the United States and, wherever prices on essentials are above the Dominion ceiling, has paid a subsidy. For the five months that Canada has been following this practice, the volume of subsidy has not amounted to much but Canadian authorities know that in time the total could run very high if Washington failed to bring prices under pretty rigid control.

• **Adjustments**—Ottawa will make some modifications in its program to gear it into the new Washington plan, but these will not be made until all details have been studied and until Leon Henderson has removed the bugs that inevitably turn up in a new project. But Canada has no intention of allowing any blanket increase in price ceilings to meet the generally higher level in the United States. Rather, Ottawa is likely to follow Washington's anti-inflation measures in the hope that they will help lower the cost to the Dominion treasury of supporting the Canadian ceiling.

Ottawa may try a 100% excess-profits tax. But Canadian officials are cold about compulsory savings. Instead they believe they can depend for a time on



What MORE can we do?

You may think you've done everything possible to boost production, but if the ceilings and walls of your plant are dirty, grimy or yellowed with age, you're losing valuable production that you could be getting right now—without adding a single man or machine!

A STRONG STATEMENT? Ask your plant engineer. Ask your production manager. Pick up your phone right this minute and call any lighting expert you know. Any one will tell you what white paint can do to aid plant efficiency!

We don't need to tell you how vital proper lighting is to production, to accurate workmanship, to sanitation, to safety, to better worker morale. Chances are that you've got a first-class lighting system in your plant right now. But if your ceilings and

walls are loafing on the job . . . if they're dark, gloomy, loaded with dirt . . . you're losing up to 60% of the light you're paying for, and up to 10% of the production you could be getting out of your present equipment!

Production isn't a matter of choice for us this year—it's a matter of NECESSITY. White paint can help you get it! You may not be able to get another machine, another worker, another square inch of floor space. But you can put a coat of white paint on your ceilings and walls without interrupting even 24-hour schedules and get an extra six minutes out of every hour you're operating now!

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There is a trained Barreled Sunlight representative near you. Backed by our 40-year experience in making white paint for industry, he is equipped to help you work out an efficient, economical plant paint program. For details, write U. S. Gutta Percha Paint Co., 12-D Dudley St., Providence, R. I.

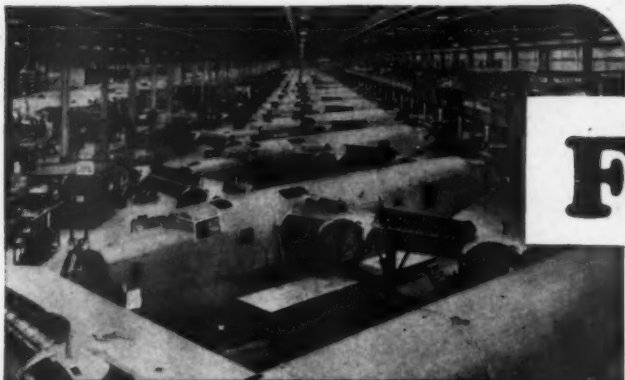
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CONSOLIDATED AIRCRAFT—These four-engined LIBERATOR bombers, like the equally famous CATALINA and CORONADO flying boats, have long been in production at one of Consolidated's great factories. They are now rolling out in volume from a mechanized assembly line.



DOUGLAS AIRCRAFT—Designed as bombers, the Douglas airplanes shown above are highly versatile and have seen action as pursuits and night fighters as well. Hundreds of other Douglas planes, from dive bombers to giant transports, are streaming out from Douglas plants.



VOUGHT-SIKORSKY AIRCRAFT—KINGFISHER observation Scouts were recently cited for their successful attacks on enemy submarines. Hundreds of them have been delivered to the Navy, and soon will be joined by quantities of the powerful Vought CORSAIR shipboard fighter.



REPUBLIC AVIATION—The Republic THUNDERBOLT with its 2,000-h.p. Pratt & Whitney engine, is being hailed as the Army's champion pursuit plane. Speed, range, altitude and blistering fire-power make the THUNDERBOLT one of the world's most formidable airplanes.

First Line of

AMERICA'S *offense* against the Axis is already rolling on the production lines of the aircraft industry.

At the beginning of the emergency, this industry was ready with superior types of airplanes, engines and propellers. Its next responsibility was the immediate volume production of these types. The photographs on these pages show how well it has been meeting this responsibility.

Heavy bombers, medium bombers, dive bombers, fighters, pursuits, trainers and transports are streaming out from production lines in factory after factory to meet the 1942 goal. Vastly expanded, the industry is now expanding still further. At the same time, it is giving every possible assistance to

★ The scenes pictured on these two pages show only a fraction of the rising output of the American aircraft industry.



VULTEE AIRCRAFT—The basic trainers shown above have been assembled on Vultee's pioneering mechanized line, and are ready for delivery to Army training centers. In another factory, Vultee combat airplanes are being rushed to completion for widespread use by the Allies.

OFFENSE

other industries in the conversion of their plants to help meet next year's goal.

In this production offensive United Aircraft is supplying engines and propellers by the thousands to nearly every major airplane manufacturer. Type after type of America's first-line fighting planes, including all those shown here and many more, are being equipped with either Pratt & Whitney air-cooled engines, Hamilton Standard propellers, or both.

UNITED AIRCRAFT CORPORATION

EAST HARTFORD • CONNECTICUT



Pratt & Whitney
Engines



Vought-Sikorsky
Airplanes



Hamilton Standard
Propellers

...only a fraction of the others in the industry are helping to swell the tide, and aircraft manufacturers are operating more than one factory ★



BOEING AIRCRAFT—In bombing raids from Berlin to Macassar Strait the BOMBING FORTRESSES have proved their mettle. These high-flying, hard-hitting bombers are being produced in a number of plants, each equally impressive to the one above.



BEECH AIRCRAFT—Each of these Beech twin-engine trainers will be used to teach hundreds of bomber pilots. Especially designed for this task, they are helping to launch the mightiest offensive force in the world.



NORTH AMERICAN AVIATION—These fast North American medium bombers, lined up for fly-away delivery to the Army, combine speed, range and striking power. These airplanes are a small fraction of the output from one of North America's factories.



LOCKHEED AIRCRAFT—This assembly line is the birthplace of HUDSON bombers, long famous for their brilliant record in the R.A.F. On similar lines in the Lockheed and Vega plants, hundreds of LIGHTNING pursuits and VENTURA bombers are being built for the United Nations.



GLENN L. MARTIN CO.—The B-26 is one of the latest Army bombers to enter quantity production. Double Wasp engines drive it at a speed approaching that of the fastest pursuits. Other Martin planes in production include the BALTIMORE bomber and the Navy's MARINER.

CUT WASHING TIME



54" Circular Bradley Wash fountain with foot-control.

GUARD HEALTH

Reduce Lost Man-Hours

• Better and adequate washing facilities are of major importance in preventing skin affections (Dermatitis) which physicians report are the cause of many lost man-hours . . . Bradley Washfountains are providing time-saving, sanitary washing facilities in thousands of plants, airports, institutions,—facilities that help to reduce lost man-hours of vital war production.

One Bradley serves 8 to 10 persons simultaneously, each with his own clean running water—Bradleys save space, too, and reduce water consumption by 70 per cent. Being of pre-cast marble or stone, they conserve critical materials. Write for "Washroom Layout" Booklet . . .

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The **PLAZA**

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DENNISON MFG. CO., DEPT. S-42, PHILADELPHIA, PA. 22

a stepped-up appeal for voluntary subscriptions to war savings certificates to drain off excess spending capacity.

• **Exchange Parity**—The most immediate effect on Canada of the Roosevelt plan is likely to be an arrangement between Ottawa and Washington on foreign exchange. Stabilization of prices in the United States will help solve the problem of keeping Canada's essential import commodities under the price ceiling. But removal of the 10% differential on Canada-U.S. exchange would not only lower the cost of imports from the United States but also would lessen Price Ceiling Chief Donald Gordon's bill on the treasury for subsidies to keep imported goods under the retail price roof.

There is a wide disparity of opinion among Ottawa officials whether it is wiser to resume parity of exchange with the United States, or to retain the present 10% exchange differential. This week's plan to stabilize prices below the border supports the move for exchange parity. Decision on the matter probably will be announced in late May or June, in Finance Minister Ilsley's budget statement.

• **U.S.-Canada Priorities**—Ottawa has sent several men from the Priorities Division of Munitions Minister Howe's department to Washington for instruction in the United States priorities system. The purpose is to speed up supplies of U.S. materials to Canadian war plants.

Deliveries are delayed through the failure of Canadian contractors to understand requirements of Washington. Priority applications received at Ottawa for transmission to Washington are frequently incomplete or incorrect, resulting in a holdup of operations in Canadian war plants. Minister Howe plans to break the bottleneck by establishing regional priority offices across the Dominion under men who have had firsthand instruction in Washington's methods.

• **Retail Roof**—Insistence on maintenance of the retail ceiling is the outstanding feature of Gordon's policy at the moment. This is underscored in his war with the Cabinet on measures to control beef prices. Gordon wants restrictions on export of beef cattle to the United States under Washington's import quota.

Minister of Agriculture Gardiner, representing prairie farmers in the Ottawa Government, so far has turned down the plan. Consequently, heavy exports of beef cattle to the United States have resulted in an acute domestic beef shortage.

• **Holding Down the Lid**—The Canadian Federation of Agriculture wants to lift Gordon's retail ceiling on beef to permit Canadian packers to compete with the United States market, and, to support the proposal, submits figures



FINAL FITTING

To speed up the construction of tankers—most critical of all vessels in the emergency program—U.S. Steel, at one of its shipyards, forms such large hull units as the bow section above in a shop before final assembly.

showing that the quantity of beef in storage now is substantially greater than a year ago. But Gordon refuses to lift the lid, and the Cabinet believes now that the opening of the pasture season will correct the situation.

Gordon's control of price policy was dramatically demonstrated last week when he refused to sanction increases in passenger and freight rates demanded by Canadian railroads, following advances allowed south of the border by the U.S. Interstate Commerce Commission.

• **Curtailment of Deliveries**—Canadian wholesalers and retailers are being warned to look for curtailment of long-distance deliveries. This is in anticipation of Gordon Board rulings on cross-hauling. Gordon has barred competition in principle, and the simplified practices division of his price control organization is directing its initial attention towards reduction of delivery costs. In anticipation of Ottawa rulings, manufacturers are getting ready to restrict deliveries on a zoning basis.

The Canadian pulp and paper industry is reconciled to a drastic diversion of hydroelectric power to war industries. Some curtailment of newsprint exports to the United States is involved. Diverted power will go initially to expanded aluminum production and new magnesium plants. Diversion is timed for June.

OUT OF AMERICA'S GLASS FURNACES ROARS ANOTHER WEAPON FOR WAR...

PACKAGE SIMPLIFICATION



AMERICA said, "We must have more containers to carry necessities to our camps, our allies and our homes. We must make the most of available packaging materials. Glass factories are running at capacity now, but can't you make even more bottles and jars?"

The glass industry, with one accord, replied, "Yes, we'll do it somehow!"

And, with the co-operation of its customers, the glass industry is doing what Uncle Sam asked. Glass container production is now actually *far above the 100% capacity* of normal times!

Here's how it is being done:

By *simplification* of styles and sizes of all glass containers. Variety yields place to volume for the duration — because Victory demands it. Glassmaking machines turn out more containers every 24 hours if there are no stops to change molds. Spare molds are reconditioned faster. Efficiency rises.

By *lighter weight containers*, which give many more containers from each ton of raw material. Scientific designing attains for each container the strength it needs.

Nor is that all. Redesigned caps and closures are saving metal, tin and paper. Better use of corrugated shipping cartons saves tons of paper daily.

It all adds up to this:

1. More glass containers for every industry.
2. Good containers—strong, efficient.
3. Factors that tend to keep costs down.

The makers and users of packages share in the determination of every American—"We'll give up anything... except our freedom!"

* * *

Owens-Illinois offers manufacturers the competent advice of its Packaging Research Division in solving wartime problems of production, filling and shipping and of container and label design.

OWENS-ILLINOIS

Packaging Service

DEVELOPERS OF *Duraglas** CONTAINERS

** The Improved Technique in Glassmaking*

Owens-Illinois Glass Company, Toledo • Owens-Illinois Can Company, Toledo
Libbey Glass Company, Toledo • Owens-Illinois Pacific Coast Company, San Francisco

MARKETING

Delivery Cut

ODT slaps restrictions on use of store trucks, but retailers hope for qualifications. Newspapers wonder where they stand.

Retailers—notably department stores (BW—Feb. 14 '42, p. 62)—have been curbing and pooling their delivery services of late, thus holding down expenses and conserving precious automotive equipment. But the trend hasn't gone far enough to suit the government. Last week the Office of Defense Transportation as part of its move to improve the efficiency of all truck transportation (page 54) removed all barriers by slapping a stiff curb on "local carriers" and their vehicles.

Like many a recent war ruling, the new ODT regulation was issued in the toughest form possible.

• **What's Allowed**—The order provides that as of May 15 no "local carrier" may make (1) any special deliveries (except to the armed forces or for reasons of public health), or (2) any call backs (a second attempt to deliver or collect the same day), or (3) more than one delivery per day to any one person (except where the shipment exceeds the capacity of a single vehicle). Effective June 15, an additional curb will be applied. It provides for a 25% reduction in mileage as against the same calendar month of 1941. However, none of the savings brought about by the May 15 portion of the order may be counted in the June 15 reduction.

Exactly who is—or isn't—affected by these rulings is now the subject of a great deal of worry and debate. ODT has defined a local carrier as "every person engaged in the transportation of property by vehicle for compensation or in the furtherance of or incidental to any commercial enterprise . . . or in making hauls which do not exceed 15 miles in length." Sole exemptions are vehicles for the armed forces, farm marketing, public utilities, sanitation, and those used in pickup and delivery services for common carriers.

• **Question Newspaper Status**—First to notice that they're not on the exempt list are the newspapers, although they had previously been granted a high rating in procuring tires. Furthermore, in conjunction with OPA, the newspapers have been working out a system of pooling deliveries and cutting out traditional frills. But the new ODT order takes hold before the voluntary pooling scheme is ready to be launched, and by

ODT's announced interpretation papers are caught in the one-a-day delivery trap.

Opinion is that the newspapers will manage to squeeze out somehow, if for no other reason than that ODT's toughness doesn't seem to square with the Office of Price Administration's leniency on tires—a leniency based on the fact that the papers are delivered not to ultimate consumers but to retailers. Less sure of their fate, however, are retailers in general and department stores in particular. The latter, through the National Retail Dry Goods Assn., had hoped that voluntary restrictions would be sufficient to solve the transportation problem, and had been working on a survey to coax the trend along. Now, however, all that's in the ashcan.

• **Wanted: Qualifications**—The big new objective will be to get the order clarified and qualified so that the elaborate delivery systems used by big stores can be at least in part salvaged. A major puzzle is whether the order will apply to each vehicle separately, or only to a whole fleet. For instance, when a purchaser buys two items from a store—one bulky (like furniture) and one small (like glassware)—the items are often delivered by separate trucks. Whether or not such dual delivery will be permissible on the same day isn't entirely clear,

though there's a suspicion that this practice will be construed as being on the prohibited list. If so, the stores will ask for a change in the rules.

Virtually all vehicle operators are staging meetings this week to get their queries—and a certain amount of protest—neatly wrapped into bundles for Washington. Feeling is that while the general toughness of the order won't be toned down, some clarifications and more exemptions will be forthcoming by May 15.

• **Three Saving Graces**—Meanwhile, however, there are three causes for a big sigh of relief. One is that the consumer—already patriotically exhorted into more bundle-toting—will take the restrictions without grumbling. For another thing, cutting down on deliveries will somewhat ease the burden of the forthcoming price ceilings (page 15) by eliminating certain expenses. And importantly, unlike a similar order recently issued in Canada, the ODT's version doesn't make deliveries contingent on minimum purchases (\$1 in Canada). Across the border, small retailers have complained that the \$1 minimum often drove their customers into the arms of bigger stores. There the purchaser would bulk up his orders until they aggregated enough to warrant delivery.

Finally, the ODT order provides a convincing answer to trucking union allegations that "carry your package" campaigns were only designed to cut store expenses, at the cost of union jobs.



30 ORANGES IN SPACE OF 1

If the 2,500,000 oranges which went into a single carload of lend-lease canned orange juice were shipped as whole fruit in crates, they would fill about 30 freight cars. Just to keep the record straight, the above car is be-

ing loaded with Florida oranges but the California Fruit Growers Exchange is also squeezing juice by the carload for export. Incidentally, the English have discovered that the bitter taste of their orange marmalade can be produced by adding grapefruit pulp to orange concentrates.

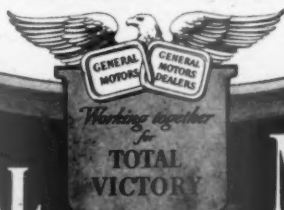
How to keep a good car good

EVERY car in use today must, as a matter of national need, now last the longest possible time. That calls not only for use carefully considered to avoid waste of the country's supply of rubber, gasoline and oil, but even more importantly for *care* designed to conserve your car to the utmost. • If you can set a spark plug and have it right, adjust a carburetor for most efficient use of available fuel, align a wheel or adjust brakes to give longest tire mileage—fine. • If those things are beyond your mechanical bent, remember that your General Motors dealer is expert at maintaining cars

as well as repairing them.

• Right now, all of his interest and attention is centered on *keeping good cars good*, because he knows that for the present, war production comes ahead of providing replacements. • Meanwhile—he furnishes quality parts. He maintains an expert servicing staff. His shop equipment is modern and complete. • He is the man in your community best qualified to work with you to keep your car fit and efficient, to the end that the country's existing supply of automobile transportation will be sufficient to see us through to the day of final victory.

The Automobile User's Guide answers your questions about taking care of your car in wartime. For a free copy see any General Motors dealer today or write Customer Research Staff, General Motors Building, Detroit.



GENERAL MOTORS

NOW AT WORK ON: Aircraft Engines • Airplane Parts • Bomber Sub-Assemblies • Military Trucks • Armored Cars • Rapid-Fire Cannon • Machine Guns • Diesel Engines • Shells • Tanks and Tank Parts • Propellers • Cartridge Cases • Gun Mounts • Fire Control Devices • Electrical Equipment • And Many Other Wartime Essentials.

CHEVROLET PONTIAC OLDSMOBILE BUICK CADILLAC

Newspaper Pinch

Publishers, insistent on the need for government advertising, make no effort to hide what war has done to their lineage.

Making no bones about the fact that they're in a tight spot, the members of the American Newspaper Publishers Assn. sat down in Manhattan last fortnight to their 56th annual convention. March lineage (as measured by Media Records, Inc., in 52 cities) was almost scraping depression lows, dropping 64% under the same month in 1941. Automotive revenue—once the reliable standby in the field of national advertising—was in a dead swoon. Lineage was off 67% from 1941.

• **Grocery Revenue Up**—As expected, the publishers decided that the best way to make up for some of this loss was to plug harder for food-grocery advertising. Their hopes along this line grew even rosier when the latest batch of statistics showed that last year national grocery revenue rose 15% in newspapers. Drugs-cosmetics and liquor, too, are counted on as tide-overs.

But the biggest of all possible prospects is a brand-new one—the government. Ringingly, Frank E. Tripp, chairman of the Bureau of Advertising (and also general manager of the Gannett newspapers), told the convention: "If any man in this room thinks he knows how to honorably induce the U. S. government to advertise in every newspaper in the United States to the extent of space which would be necessary to cover all government activities, or to do any important newspaper advertising at all without like consideration for all advertising mediums, he's a slacker in the ranks. Why hasn't he stepped up in the firing line?"

• **A Hearty Amen**—To these sentiments, the publishers echoed a hearty amen. Nor did they apparently feel—as the American Society of Newspaper Editors had halfway felt the week before—that such advertising would be a hot potato. The editors, at their convention, had wrestled mightily with the problem of government money, finally working up a resolution opposing the solicitation of a government "subsidy." The resolution eventually was referred back to committee (a mail vote will be taken on it later), but the feeling of aversion seemingly had gained some foothold.

By contrast, the publishers deemed advertising necessary to "the preservation of a free and independent press." They took the view that government advertising should be solicited on the same basis as any other kind of advertising. Rough estimate of the cost to the government: \$60,000,000 annually

to cover magazines, radio, billboards, and daily and weekly papers.

• **Selling Methods Criticized**—Simultaneously, the publishers once more castigated themselves for indulging in over-aggressive selling, competitive sniping, and high pressure tactics. Declared Tripp: "We can't survive much longer the kind of selling that bedevils an advertiser through his distributors, his salesmen, and his retailers, and convinces him that when he stepped into newspapers he did the biggest damned fool thing he ever did in his life."

Other A.N.P.A. thoughts and actions: Prophecy of a trend toward smaller papers to conserve newsprint and mechanical facilities (BW-Apr.18'42,p54); cutting down on free copies, returns, and brochures; pooling of facilities where possible.

• **Arnold and the A.P.**—In the interim, the Associated Press held its annual get-together, also in New York, and through one of the stormiest sessions in years the shadow of Thurman Arnold kept flitting in and out. Membership in A.P. has traditionally hinged on a four-fifths affirmative vote—an arrangement which has fallen under the eye of the Anti-trust Division.

Consequently, A.P. revised its rules to permit membership by a simple majority, plus payment of certain dues to those affected by the newcomer. First to be voted on under the revised system

were Marshall Field's Chicago Sun, and Eleanor Medill Patterson's Washington Times-Herald. Both lost—the Sun by 684 to 287; Times-Herald, 514 to 242.

A Better Sampler

Magazine group tries out method of testing answers against census data in analysis of their readers' habits.

This week the Magazine Marketing Service (sponsored by a large group of magazine publishers) is distributing the first thorough-going study ever made of the penetration of magazine readership by income, age, and sex. Aside from its evident usefulness to magazines, the work appears destined to command much more than a parochial interest, for researchwise it represents the first major attempt to align a sample with the finding of the 1940 census.

• **Improving the Samples**—Of the many headaches besetting media research, sampling has been one of the biggest. It also has provided the occasion for much sneering from noncommercial statisticians. When is a sample of readers and nonreaders big enough? When has all lopsidedness been ironed out? To these bothersome questions the

The collage consists of several distinct advertisements:

- "DON'T MENTION IT," says the Tax Collector**: A small ad with a headline and subtext about tax benefits.
- IS THE ENEMY IN YOUR PAY, Mr. P?**: A large ad featuring a car and the text "USE Road Transport", "SAVE TIME & MONEY to Buy - 3% SAVINGS".
- Gilt-edged**: An ad with a headline and subtext about a "National Savings Certificate".
- WHAT WOULD YOU DO, CHUMS?**: An ad with a headline and subtext about a "War Savings Campaign".
- They pay a bonus**: An ad with a headline and subtext about a "War Savings Campaign".
- AN INVESTMENT with no Income Tax deducted at source**: A large ad with a headline and subtext about a "You can invest as little as £25".
- When the lights go up**: An ad with a headline and subtext about a "War Savings Campaign".

BUY BRITISH—BONDS

British financial advertising used to be rather stuffy reading but today snappy headlines and breezy copy sell War

Bonds and Savings Certificates. Individual advertisers donate generous portions of their ads to boost War Bonds, but the government continues to be Great Britain's largest space buyer.

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A "BALE" of protection for your goods!

DURYEA *Cushioned* CARS lessen jolts that
damage shipments—give safety to lading

"Load 'em up! Highball!" Thus freight-yard crews meet America's demand for more capacity—more speed in transportation. No wonder these heavily-burdened, fast-moving trains cause damage in transit. To assure safety of your lading, Duryea-Cushioned Cars are a *necessity*.

DURYEA Meets the Challenge

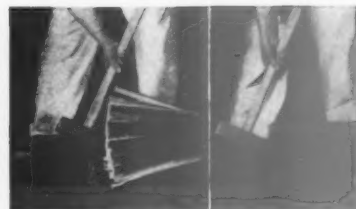
Ordinary draft gear (the conventional "buffer" on freight cars) may go solid after absorbing less than 20% of a coupling smash. When friction-type draft gears stick or get out of order, they pass the wallops directly to car and lading. But the Duryea Cushion Gear never fails—it gives

100% shockproof protection, always. In Duryea-Cushioned Cars, floating center sills (exclusive with Duryea) let car and contents *ride over* the damaging smacks, unharmed. Powerful springs further lessen impacts.

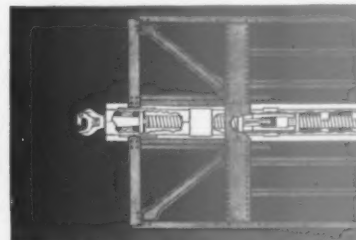
Cost of Duryea gear has been reduced so that it now compares favorably with conventional construction. Further, it produces continual savings in reduced packing expense, lower maintenance, permits faster handling, keeps cars rolling.

Write for illustrated booklet

O. C. DURYEA CORPORATION,
30 Rockefeller Plaza, New York, N. Y.
Field Building, Chicago, Ill.



ONE SMACKS! ONE SLIDES! Photos show how Duryea floating sills lessen shock. Left: Block of wood (sill) against wall will crack when hit with sledge. Right: With spring allowing block (sill) to slide, hardest blows won't cause damage.



PHANTOM VIEW of one end of a Duryea Underframe shows floating center sills and huge springs that cushion every impact. Duryea-Cushioned Cars give greatest protection!



RAILROAD MEN! Duryea makes ordinary draft gear as obsolete as a 1921 newspaper. It reduces maintenance cost and damage claims — lasts entire life of car. Duryea equipment pays for itself quickly. Investigate

DURYEA *Cushion* UNDERFRAME **For Freight Cars**

THE MODERN SAFEGUARD FOR SHOCKPROOF SHIPPING

NEVER-SLEEPING PLANT "WATCHMAN" THAT STAYS YOUNG

Built into every foot of Wickwire Fence is 121 years of experience in pioneering better wire and wire products. Wickwire Spencer engineering, for instance, first developed the process of hot galvanizing *after* weaving, and many more advances, which have built the Wickwire Fence reputation for lifetime economy and handsomeness.

If you have war production to protect, and want chain link fence that will prove a permanent investment in good looks as

well, call the Wickwire Spencer Chain Link Fence representative listed in your classified 'phone book—or write Wickwire Spencer Steel Co., Rand Building, Buffalo, N. Y.

Please Cooperate. We ask our old friends to postpone orders for civilian needs. We know you would want us to concentrate on protecting war plant production now. Later, with Victory, there'll be plenty of Wickwire Fence for all.



WICKWIRE FENCE

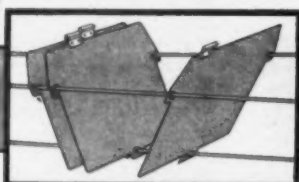
THESE STREAMLINED WOOD FILING CABINETS SPEED UP ROUTINE AND MAKE WORK EASIER

Office efficiency is extremely important in increasing the production of materials in war time, and "Defender" wood files help solve the problem of speeding up business routine during this emergency.

These modern Globe-Wernicke filing cabinets combine the charm and beauty of wood with the newest and best mechanical features . . . including the patented *Tri-Guard (3-rod) principle . . . assures faster filing and finding with greater accuracy and less work.

See them at your local Globe-Wernicke dealer . . . or write direct to us.

"Defender" wood filing cabinets are available in 2, 3 and 4 drawer, letter and legal sizes . . . beautiful genuine walnut, mahogany and oak finishes.



THE NEW *TRI-GUARD WAY
Guides slide on three rods that support as well as index contents of drawer. Contents cannot slump . . . indexing is always visible . . . easy to file and find.



The Globe-Wernicke Co. . . CINCINNATI, O.

media researcher has usually applied, as best possible, a guess, a rule of thumb, or a prayer. Now it may be that, with the aid of census data, at least some of the kinks can be ironed out.

As devised by Magazine Marketing Service, the research firm of Elmo Roper, and the U. S. Census Bureau the new sampling technique was tried out in Des Moines. The Census Bureau provided statistics on age, sex, and occupied dwellings, for all of the city's 44 census "tracts" (this was a new divisional breakdown employed in the 1940 census). M.M.S., through Roper, then sampled one out of every ten families, tract by tract, keeping all interviews correctly proportioned to the main picture provided by the Census Bureau. In all there were about 4,000 interviews (after proper deductions for prisons, hotels, hospitals, sanitariums).

• **Results Checked**—When the interviewing was completed, some of Roper's independent findings were again matched against census data. Roper had asked the guinea pigs about the size of their income. His findings were then averaged out and applied by the Census Bureau against their average rental statistics. The match was well-nigh perfect. Other matchings—notably education and auto ownership—are now in progress, but it appears so far that a sample which is correct as to age, sex, and the distribution of occupied dwellings is also correct in other respects.

While Des Moines has been the only city surveyed thus far, it is possible to add 59 more to the list, for the census data on a "tract" basis covers 60 metropolitan areas in all. Furthermore, in the light of the initial experience, it may be possible to devise some short cuts. Instead of surveying a whole city, it appears likely that the use of only a few representative tracts will produce the same results as an over-all job.

• **May Aid Census Takers**—This possibility has interested not only M.M.S., but the Census Bureau as well. Should a sample of truly representative tracts eliminate laborious, city-wide doorbell pushing, it's conceivable that some sort of census could be taken at interim intervals on the basis of tract-counts.

With respect to reported magazine readership vs. population composition, M.M.S. found that the economic composition of Des Moines families was:

Income	% of Total Families	% of Aggregate Income
Under \$1,000	16.9	4.4
\$1,000-\$1,500 . . .	21.5	11.7
\$1,500-\$2,000 . . .	19.0	14.2
\$2,000-\$2,500 . . .	16.4	15.7
\$2,500-\$3,500 . . .	13.7	17.5
\$3,500-\$5,000 . . .	7.7	14.0
\$5,000 and over . .	4.2	22.5

• **Who Reads What**—By taking an inventory of magazines found in each home (47 magazines of recent date only were counted in the findings) M.M.S.

found that about 71% of the homes, accounting for 81% of aggregate income, had one or more brands on hand:

Income	% of Families Having Magazines	Average No. of Brands
Under \$1,000 . . .	43	2.44
\$1,000-\$1,500 . . .	62	2.99
\$1,500-\$2,000 . . .	75	3.07
\$2,000-\$2,500 . . .	81	3.51
\$2,500-\$3,500 . . .	86	4.41
\$3,500-\$5,000 . . .	88	4.90
\$5,000 and over . . .	94	6.28

Reported readership of magazines (as distinguished from merely having magazines around the house) involved 64% of persons 15 years or older, accounting for 91% of aggregate income:

Income	% of Readers Reported Per Income Group*	No. Magazines Reported Per Reader
Under \$1,000 . . .	59.6	6.15
\$1,000-\$1,500 . . .	81.3	6.58
\$1,500-\$2,000 . . .	88.6	7.61
\$2,000-\$2,500 . . .	91.9	7.75
\$2,500-\$3,500 . . .	95.1	8.89
\$3,500-\$5,000 . . .	97.0	9.15
\$5,000 and over . . .	94.5	11.23

* A "reader" is defined as an individual who reported that he had recently (within the past three or four months) read a magazine.

• **Milady Reads the Most**—By sex, 78.4% of men 15 years or older reported that they read one or more magazines; the total for women was 87.8%. Age groups breaks down thus:

Age	Reported Male Readers	Reported Female Readers
15-24	91.6	95.1
25-34	87.1	94.4
35-44	80.4	88.1
45 and over	65.1	79.0

Further M.M.S. studies along this line will depend on the uses to which the current one can be put. An interesting economic sidelight is the discovery that in those homes with incomes up to \$1,500, the predominant age group is 45 and over. In the \$1,500-\$2,500 groups, 25-34 is the predominating age group. Youngsters get their biggest chance in the \$2,500-\$3,500 stratum. There the predominating age is 15-24.

MORE SUBSTITUTES

In the search for substitutes to put on their shelves, durable-goods dealers (notably the hardware fraternity) are considering, and in some instances buying, the following: school and stationery supplies, floor coverings, certain lines of wood furniture, groceries, limited drug lines, and blackout materials. The larger dealers and wholesalers additionally are attempting to acquire second-hand items which they plan to recondition for sale as nearly-new. Trouble with all these substitutes, however, is that they (1) aren't diversified enough to stock a store completely, and (2) often don't lend themselves to customary profits.



THE U. S. Soldier of today, say the records, is the healthiest the world has ever seen. For this, credit the U. S. Army's Medical Department, which has wrought miracles.

Deaths from sickness in the Army are a fraction of those in civilian life . . . for tuberculosis *one-ninth*, influenza *one-tenth*, pneumonia *two-fifths*. Typhoid fever, "great killer" of the Spanish-American war, has been virtually eliminated. From 4,800 cases and 535 deaths per 100,000 then, it has been reduced to 3 cases in a million, for the first half of 1941, and no deaths.

In the field of preventive medicine the Army's Medical Department has taken the lead in America. In the largest laboratory of its kind in the world, the Army Medical School makes all of the typhoid-paratyphoid vaccine required by the Army, Navy, U. S. Public Health Service, Indian Service, and other Federal Departments . . . and in furtherance of the Good Neighbor policy has supplied

the stock culture to other nations in the Western Hemisphere. Output last year was multiplied 8 times, to 33½ million cubic centimeters.

The planting and harvesting rooms used in making vaccine are sterilized with live steam. Sealed during use, they are conditioned with air which is thoroughly sterilized by washing and passing through ultra-violet light. As in the case of operating, clinical, therapeutic and other hospital equipment which must be rustless and readily sterilized, the metal employed for constructing these rooms and the equipment is Monel . . . another instance of the importance of INCO Nickel Alloys to the well being of the forces.

THE INTERNATIONAL NICKEL COMPANY, INC.
67 Wall Street New York, N. Y.



Specially designed Monel sterilizing equipment in use by the Army.

INCO NICKEL ALLOYS

MONEL • "K" MONEL • "S" MONEL • "R" MONEL • "KR" MONEL • INCONEL • NICKEL • "Z" NICKEL
Sheet...Strip...Rod...Tubing...Wire...Castings

ADVERTISEMENT BUSINESS PAPERS

P. A.'s Discovery

For two decades Charley Ford has been purchasing agent for a Chicago manufacturer, is recognized as one of the keenest buyers in the business. But it took a printer to open his eyes to a more efficient, economical method of buying business stationery. Said the printer;

"Mr. Ford, you've been buying printing on a hit and miss basis . . . one job here, another there, each piece as a unit rather than as part of a program. Let me work out a blue print for all your letterheads, invoices, statements and forms. I'm sure I can give you better results and possibly save you money."



CHARLEY IS SURPRISED
Printer Shows Him New Angles

► **Printer Plans.** So Charley Ford gave his printer the go-ahead. A few days later the printer returned with a definite plan for making Ford's business papers more attractive and effective. He had figured ways to save money by reducing the amount of paper used on certain pieces and by combining press runs.

Thus thousands of U. S. business executives are learning that "It Pays to Plan With Your Printer." Key to printers' "blue prints" is the Nekoosa Bond Plan Book, "must" reading for every printing buyer, plus Nekoosa Bond, the paper that meets every requirement of office and press room.

War-time requirements keep the Nekoosa-Edwards mills running night and day. A few of the many military papers made here include cartridge paper and wrapping, paper for plastic panels in planes and ships, waxed packaging for explosives, protective wraps for metals and battery wrappings. Despite this capacity production, Nekoosa Pre-Tested Business Papers' qualities — strength, opacity, surface — remain tops. Your printer will show you this paper when he presents your business stationery "blue print." Call him today.

IT PAYS TO PLAN WITH
YOUR PRINTER

Nekoosa Bond

One of the Pre-Tested Business Papers manufactured by the Nekoosa-Edwards Paper Company, Port Edwards, Wisconsin. Companion papers are JOHN EDWARDS BOND, NEKOOSA MIMCO BOND, NEKOOSA DUPLICATION BOND and NEKOOSA LEDGER.

The Regional Market Outlook

BOSTON (Income Index—154.6; month ago—151.1; year ago—120.8)—In New England as a whole, armament acceleration is more than offsetting the lag in nondurable goods lines and in farm income.

For the most part, increases in war employment are pyramiding at such existing arms making centers as Hartford and New London, Conn.; Worcester and Pittsfield in western Massachusetts; and Portland, Bath, and smaller boatbuilding

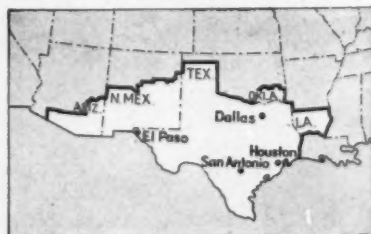


ST. LOUIS (Income Index—162.2; month ago—159.6; year ago—125.5)—Income payments continue to outstrip the nation's in most sections of this Reserve district. Prospects are above average in this city, Evansville, and other centers in the north, and in such Arkansas towns as Ft. Smith (cantonment), Pine Bluff (lumber), and Texarkana (war plants). In western Tennessee, arms payrolls are rising sharply at Milan and Jackson, and construction, aircraft, and ordnance employment continues to expand around Memphis.

Farm income, too, is sharply above 1941 levels. Livestock marketings in the north are mounting, in response to domestic and lend-lease demands. And, weather permitting, 20¢ cotton should produce bumper receipts, in the southern part of the district.

But there are dark spots. Missouri's winter wheat prospects are off sharply from 1941, itself a poor wheat year.

DALLAS (Income Index—160.5; month ago—159.3; year ago—129.8)—Unfavorable weather in recent weeks has impaired agricultural conditions in this southwestern region, just as intensive spring farming was getting under way. Drought in late March and early April set back winter grains in all sections except the Texas Panhandle. Heavy rains which followed washed out row crops. All in all, planting and other farm work have been generally delayed.



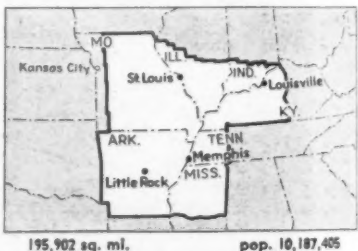
towns in Maine (BW—Apr. 18'42, p. 15).

However, immediate expansion of payrolls in consumer-goods Rhode Island and eastern Massachusetts is likely to be moderate. Because of reduced raw-materials imports, woolen and shoe production has dropped back to levels of a year ago. Cotton manufacturing, though still registering modest gains, is right up close to capacity, so further increases in operation are limited. But shipyard expansion will be a bolstering factor in Boston and vicinity.

Farm prospects, especially in rural Vermont and New Hampshire, are only fair. Last year, because of parched pastures in this livestock-raising district, farm income gains over 1940 ranged from but 8% to 19% here, as against 29% for the nation. Plantings this year will not be increased as much as in other regions. So any big rise in farm receipts depends on favorable weather during the growing and harvest seasons.

There will be fewer spring lambs in both Missouri and Tennessee, and cotton planting in much of Arkansas and Mississippi is behind schedule.

Shoe output in and around St. Louis, and coal and oil production in southern Illinois and Indiana are also "slow"—barely ahead of 1941 levels. Louisville's war boom is tending to flatten out, now that the big powder and bag-loading plants at nearby Charleston, Ind., have been completed and staffed.



However, out-of-pocket losses will be small. Subsoil moisture once more is ample, and most ranges are again in good condition. And cotton is being planted to replace ruined wheat and oat crops. Indeed, with cotton above 20¢, prospects are excellent—unless, of course, the weather happens to take a turn for the worse, as it did last year (BW—Aug. 30'41, p. 38).

Meanwhile, war work continues to lift industrial payrolls, particularly in the eastern half of the district (BW—Apr. 4'42, p. 60). Construction volume has tapered off lately, but new awards will soon lift activity. Several military projects are scheduled for towns in western sections—at Amarillo, particularly; also at Lubbock, Big Spring, San Angelo, Hondo, Eagle Pass, and Pecos. But the oil industry continues to suffer from the tanker shortage: production quotas have again been cut—to less than 60% of 1941 output.



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To an America whose war policy is to beat machines with more and better machines, it is important to know that the tanks rolling out at Baldwin are rated as the most advanced fighting machines in the world.

The production of tanks was, of course, new to Baldwin, yet much of the designing and engineering of the new 60-ton monsters was done at Baldwin, by Army Ordnance and Baldwin engineers.

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possible constant improvement in aircraft design; builds the kind of presses on which colorful plastic products are made; builds the powerful turbines that go into Boulder Dam.

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TRANSPORTATION

Eastman's Job

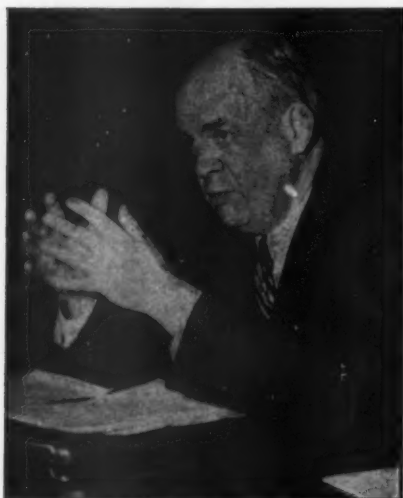
Thus far ODT handling of transportation problem seems to please everybody except labor, miffed over I.C.I. ruling.

Most everybody concerned appears to be fairly well satisfied so far with the way Joseph B. Eastman is tackling the wartime transportation job. Most everybody, that is, except railroad labor.

• **Management's Attitude**—Rail management feels that with some sort of wartime control inevitable they got about the best possible setup. And the motor carriers have their particular interests looked after by "motor-minded" Commissioner Rogers, a former director of the Interstate Commerce Commission's Bureau of Motor Carriers.

The railroads didn't care very much for Eastman's General Order No. 1 (BW—Apr. 4 '42, p28) practically doubling the minimum on less-than-carload merchandise loadings which now average 5.3 tons. A compulsory minimum of 10 tons effective Sept. 1, reached by progressive stepups, is designed to divert lighter loads to trucks or freight forwarders.

• **Labor Squawk**—Railroad labor yelled loudly, apprehensive that the railroads might pool I.C.I. freight handling operation as a result of the order. On this ground, George M. Harrison, president of the Brotherhood of Railroad Clerks,



Joseph B. Eastman, OCD head, contends transportation is entitled to a seat at WPB's head table, not for the prestige but in order to avert a recurrence of the railroads' dilemma during the last war.

charged that Eastman had swept aside the labor-protection provisions of the Transportation Act of 1940 against consolidations, pooling, and other joint actions except on authority of the ICC.

Rail labor, a former Eastman booster, has had little use for him since he began several years ago to stress the workers' real, long-run interest in avoiding unreasonable demands upon an industry which was confronted with growing competition from other agencies of transport. Nevertheless, President Roosevelt gave Eastman's ODT the job of operating the Toledo, Peoria & Western when he took over following failure of the War Labor Board to settle the strike (BW—Jan. 31 '42, p20).

• **Neither a McAdoo Nor a Czar**—In the four months since ODT's creation, it has been following pretty generally the plan laid down by Eastman at the outset. As Eastman appraised his rôle, he is neither "a second McAdoo, nor yet a transportation czar." Thus he has been disposed to rely largely upon the voluntary cooperation of carriers and shippers.

The work of organization still goes on, but the major divisions have been set up and the key positions filled. For the latter, Eastman recalled several men who were with him in the Federal Coordinator of Transportation's organization. No top-flight railroad executives are found in ODT.

• **Boatner for Budd**—Eastman's first choice for director of his Division of Railway Transport was Ralph Budd, who had been Transportation Commissioner on the former National Defense Advisory Commission. Budd begged off, preferring to resume the Chicago, Burlington & Quincy presidency on a full-time basis. ODT's top rail position then went to V. V. Boatner.

The I.C.I. loading order and General Order No. 2 which prohibits local transit companies and railroads from substituting bus services for street car or train service on existing rail routes, comprise ODT's only departures thus far from the cooperation-seeking policy. For the rest it has relied on appeals in the many speeches made by Eastman, on conferences with carrier and shipper groups, and on "statements of policy."

• **Main Worries**—ODT's major concerns have been with the securing of materials and equipment for the carriers, the creation of storage and warehouse facilities in terminal areas, and arranging for the transportation of war workers.

Eastman is on record against transportation priorities. If he had his way, he would regulate the volume of freight by giving due weight to the transportation factor in applying controls to the production of civilian goods. If priorities come, ODT would then be well on the way to becoming what some wag has already called it—the Office of Delirium Tremens.



SHOES FOR IRON HORSES

At the repair shop of the New Haven Railroad, last week's candidates for the scrap heap are today prime prospects for another term of service. Locomotive driving wheels line up for their turns at a retreading machine.

Freeing the Trucks

Relief from conflicting state regulations is sought at powwow of governors. ODT sets rules for more efficient use of vehicles.

The "War for Survival," as President Roosevelt calls it, promises to circumscribe sharply the theater of one other war which for years has taken its toll from American business. That war is the "War Between the States" (BW—Jul. 15 '39, p31), and it has been fought most bitterly in the field of trucking operations. The federal government has now served notice that it intends to cut through the maze of conflicting weight and size limitations, license and labor regulations, which the individual states have reared over a period of years.

• **Calling a Conference**—First step in the direction of standardizing these motor carrier regulations will be taken next Tuesday, Wednesday, and Thursday when the governors of the 48 states or their appointed representatives will meet in Washington with officials of the Office of Defense Transportation.

There have been many other meetings of state representatives to confer on the problem, and, although some progress toward ending the Hatfield-McCoy feud has been reported from time to time (BW—Jul. 5 '41, p18), truckers still have to halt at many a state line to alter running lights, reduce loads,

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or shift them to other vehicles that conform to local rules. This time, however, the states aren't being asked to settle the problem; they're being told. For the invitation to confer is being accompanied with a good deal of club-wielding—the club of federal legislation. Already introduced in the Senate is a bill to empower the President to remove or alter state laws that block the interstate movement of motor carriers. This bill, S.2478, is intended, “to facilitate the prosecution of the war by providing for federal regulation of sizes and weights of motor vehicles.” It would expire six months after the end of the war.

The Senate Interstate Commerce Committee is now studying the bill, together with another measure designed to effect a permanent rather than just an emergency solution of the problem. This bill would authorize the Interstate Commerce Commission, on complaint and after a hearing, to prescribe motor truck size and weight regulations to replace state controls which it found unreasonably restrictive.

• **No State Action Now**—However reluctant the Administration may be to short-circuit sacred states' rights, federal legislation may be required if fast action is going to be had, for in most cases the states cannot alter their own regulations except by legislative enactment, and the state legislatures generally will not convene again until next year. The situation might be satisfied, however, if federal officials can obtain state commitments to a workable program, to be translated into law as rapidly as possible, coupled with an agreement not to press the enforcement in the interim of regulations which were in conflict with that program.

Truckers never had a better chance to obtain the long-hoped-for relief. To support their case, they point out that for-hire motor vehicles last year carried more than 50,000,000,000 ton miles of freight and that this year that record will be surpassed. The volume of petroleum handled by motor carriers in March jumped almost 80% above the same 1941 month. Over half of the loads now carried are war materials.

• **ODT's Program**—Greater efficiency in operations of the motor truck industry itself will be enforced by the Office of Defense Transportation. Present equipment must carry as much freight as possible as rapidly as possible, but, in addition, it must be made to last as long as possible, because all commercial truck production has now been halted.

• **Double-Barreled Rules**—Some of the recent orders from the ODT are designed to accomplish both objectives simultaneously. Beginning June 1, for instance, operators must load vehicles to capacity on outgoing trips and carry at least 75% of capacity on return rides. Elimination of less-than-capacity loads may be realized through a general

rearrangement of schedules and perhaps pooling of facilities.

At the same time, trucks may not overload. Ceilings on overloading and elimination of hauling by circuitous routes would conserve equipment, including hard-to-get tires and gasoline. The rules apply to over-the-road operations of common, contract, and private motor carriers.

• **For Cooperative Action**—The ODT suggests that compliance with these rules may require any one or combination of the following arrangements: (1) alternate or staggered schedules; (2) exchange of shipments or property; (3) pooling of shipments, revenues, or both; (4) joint loading or operation of trucks; (5) diversion of shipments, lease of equipment, and operation of joint terminals or pickup or delivery vehicles; (6) interchange of equipment; and (7) appointment of a joint agent to “concentrate, receive, load, forward, carry, unload, distribute, and deliver property; receive, account for and distribute gross or net revenues therefrom, or otherwise handle or conduct the carrier's business as carriers of property upon just and reasonable terms and conditions.”

Before such plans are put into approval, however, they must be approved by the ODT and the ICC, or the proper state regulatory body. Such approval will virtually assure immunity from anti-trust law prosecution for the duration.

A special set of provisions, effective May 15, are designed to curtail local delivery service and assure a more efficient and economical use of existing equipment (page 46).

• **More Tires and Gas**—The Office of Price Administration last week did its bit to “Keep 'em Rolling!” by amending tire rationing regulations to permit interstate carriers to buy an emergency reserve of tires and tubes equal to 10% of the total number of running wheels. Another OPA order excludes commercial trucks from the recently-announced gasoline rationing program.

AGRICULTURE

Harvest Handicap

It may be early to start worrying about getting in the crops, but with labor supply on the ebb it looks tough.

Predictions for a lush national farm income in 1942 are qualified to some extent by the process in which a ripe tomato that is not picked in time becomes very shortly nothing more than an object for theatrical throwing. Most farm crops not harvested within reasonable approximation of maturity similarly degenerate.

Ergo, the farm labor supply during 1942 harvests may well prove a critical ingredient in farm income for 1942. Even more so in 1943.

• **Goals Intensify Problem**—Almost without exception farm production goals this year are set high, which means an aggregate bulk of farm work equally high. Simultaneously farm labor is being drained off by selective service and the pull of war factory wages (BW—Jul. 5 '41, p.29).

Thus far the shortage, although widely discussed, has been not only small in quantity but has developed no appreciable interference with spring work. From here on, however, farm labor will make increasingly loud news. Producers who have reached down into younger family members for more help and absorbed floating unemployed have about run out of their supply.

• **Tipoff This Month**—Moreover, the month of May sees harvests starting the northward movement from Florida, the lower Rio Grande valley, the Imperial Valley. First news-worthy trouble may come from North Carolina where nor-

HOW LABOR FOLLOWS THE HARVEST



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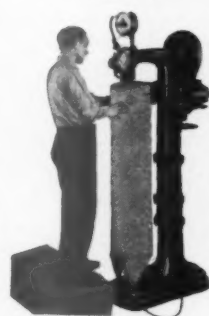
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CARTONS OF WAR MATERIALS STITCHED FASTER WITH SILVERSTITCHERS



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More and more war products are being packed in fibre and corrugated containers. Forming and sealing or closing are quicker and more economical with wire stitching. Consequently, Acme Silverstitchers are found in many plants jammed with Victory orders. Made in special and in three standard types. Acme Silverstitchers fill every carton stitching requirement. In the picture above, the long triangular shaped pack, being stitched, will soon transport end plates for 75 MM shells. Meeting Government specifications, for sealing and forming, steel stitching assures not only a faster job but a stronger package.

RCAF TRAINING CORPS GET AERIAL BOMBS IN STEELSTRAPPED PACKS

"Practice makes perfect"—and that's the reason the Royal Canadian Air Force maintains a large supply of non-explosive



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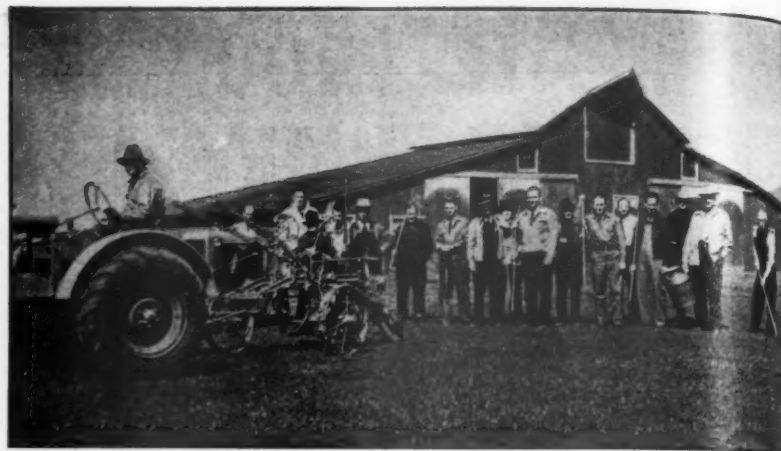
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The first platoon of the Sycamore (Ill.) Farm Commandos reported for duty one afternoon last week, piled into automobiles, and drove to the Dayton farm east of town. Business men of the town worked for several hours at repairing fences and cleaning fields. This is a relatively slack season on northern Illinois farms, but the

real test of the idea will come with June and July haying, at which time the members agree to work several hours a week helping out their short-handed farm-neighbors. The idea was incubated by J. J. Farmer of Sycamore, Allis-Chalmers farm-equipment salesman, who has organized similar groups throughout his territory.

mal times see mobile labor from Florida strawberry beds arriving in watermelon lands and on into the truck crop tide-water lands of southeast Virginia.

If unwillingness to risk jalopies or jalopy tires or availability of satisfactory jobs at starting points is going to keep migratory farm workers from joining their usual treks, North Carolina is apt to give the tiptoff before the middle of May. Other movements to meet peak seasonal demands may vary with regional spottiness, yet the first one will provide trend information on the prospective size of the problem.

• **Seasonal Peaks the Problem**—Farms normally have a surplus of available labor. Hence the figure of 9,843,000 persons employed on farms on April 1, although it is 97,000 smaller than a year before in the face of more aggregate work, means relatively little. Routine work needs of agricultural producers can be met. Peak seasonal demands are in question. Example: in the worst farm labor area, the Northeast, there is practically a standing demand for any number of good dairy hands, yet there is no interference with milk production. However, when Northeast fruit is ready to pick, a similar shortage of workers at the critical period could result in considerable loss of food tonnage.

Rising wages to farm workers are of some help, and this stimulant is already in operation, the index of farm wage rates on Apr. 1, 1942, standing 28% higher than on Apr. 1 last year. The Department of Agriculture is preparing, however, for more comprehensive measures where and when need develops.

• **Trouble Shooters**—Last week eight men from the USDA's Office of Defense Relations set out on a month's survey to scent potential trouble spots. By late summer or autumn it is distinctly possible that machinery will be ready to carry out large-scale, federally-managed movements of farm labor.

Meanwhile the USDA has the following over-all policy of making ends meet: (1) Utilize available supply in a given locality; (2) retain key farm workers by encouraging producers to up wages, improve housing, or by providing Farm Security Administration labor camps; (3) bring in farm labor from surplus areas, including transfer of subsistence hillside-farmers to productive areas; (4) set production goals with due care for labor availability; and (5) bring in high school boys, women, other workers to vent peak pressures.

• **Tabulating the Supply**—The organization backing up the policy was first set up in March, 1941, when the department introduced farm labor subcommittees of state agricultural planning committees. Now, through local USDA war boards, the department will take on practically any group, down to and including chambers of commerce, as allies.

Included in this organizational manpower will be the 1,500 full-time and 3,000 part-time United States Employment Service farm placement officers. Each state USES office has completed or is now completing a tabulation of potential farm labor sources and requirements, in which each local body has registered practically every possibility from rural unemployed to metropolitan

War Workers...

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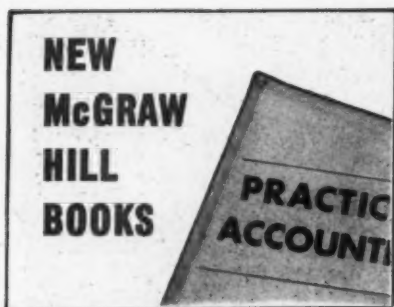
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• **Cooperative Efforts**—Outside government operations, farmers themselves are falling back on the time-honored co-operative method of pooling men and machines which will be a real influence in the 1942 harvest, even more so in 1943. Witness the five Madison County (Iowa) farms which have pooled 14 implements, 16 horses, five farmers (one a woman), and one hired man in a joint operation covering 1,463 acres, five crops, and 421 head of livestock.

At Sycamore, Illinois, the local chamber of commerce canvassed town business men, signed up a number on pledges to spare as much time as possible for volunteer work when nearby farmers ask for it—"compensation, the privilege of being a free man living in the U.S.A."

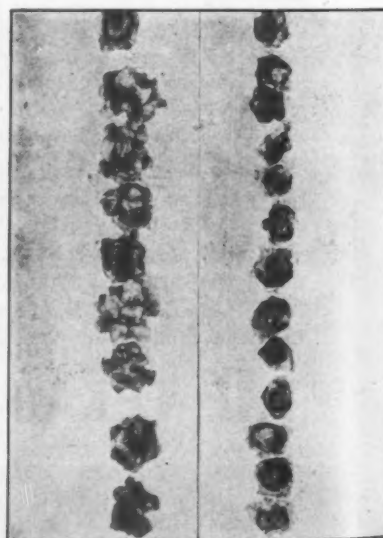
Regardless of all preparations it is to be expected that later harvests will see crises in which whole high school enrollments will be rushed out country to save an overripe crop. Some won't be saved but, one way or another, most will.



BET THINNERS

A mechanical sugar beet thinner (above), which is now being built by Farmers Mercantile Co., Salinas, Calif., is being hailed by growers as the missing link in complete mechanization of sugar beets (BW—Feb. 7 '42, p26). The machine eliminates costly "stoop" labor by straddling two beds (four rows) and with its cutaway discs removes alternate clusters of

young beet plants. Another device (below) accomplishes the same objective by doing the thinning job before planting. It is a beet-seed shearer, developed by the University of California; it breaks up seed clusters (left row) into single seeds (right). Correct spacing of individual seeds in the sowing practically eliminates thinning. Growers and sugar manufacturers have been furnished with blueprints of the shearer.





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Corn-Hog Coup

Wallace finds ever-normal granary system unbeatable for getting a supernormal flow of hogs to wartime markets.

In recent weeks the first unbeatable system of rigging the corn and hog markets, developed by shy, pious Vice-President Henry Wallace as an essential part of his ever-normal granary plan for American farming, has successfully withstood inflation threats such as shot the price of pork and lard to dizzy heights during the last war. At the same time, it has brought into sight a tonnage of hogs that may swamp packing-house facility in the country before snow flies.

• **Backed by Big Stakes**—Wallace's unbeatable market system is based on the famed corn-hog ratio which every Middle Westerner understands and about which few elsewhere ever heard. Backing this basic ratio of his system are stakes in the way of government-owned corn and wheat that make the 10,000,000-bu. corners of the big operators of the Chicago pit in the old days look like two-bit bettors in a no-limit stud poker game.

Years of experience with many millions of hogs have shown that, under corn-belt farm conditions, 11 bushels of corn produce 100 pounds of pork on foot. The statistics for long periods also show that when corn is high and hogs are cheap, the porkers come to the packers' sticking tables low in weight. Before long this causes corn to drop and hogs to come up. Then the "mortgage lifters" are held back in the feed lots, to put on more fat.

• **Knows His Corn**—The Vice-President came from out where the price-of-hogs is one word. He also knows corn the way a production engineer knows his raw materials. He and Chester Davis, who also knows farming from long first-hand experience, developed and installed the ever-normal granary idea before Wallace moved over to head the Senate and Davis went to the Federal Reserve Bank. Both were sure that, in this idea, they had the way to reduce the price fluctuations that had made hog-and-corn farming a worse gamble than playing the races. And, since the country produces nearly three times as much corn as it does wheat, they were working to stabilize the foundation of corn-belt agricultural economics.

But neither Wallace nor Davis could have had any grasp of the tremendous importance of their ever-normal granary idea as the basis of the system that the Department of Agriculture is now playing to produce the unbelievable numbers of heavy hogs that will reach the market this winter. These hogs will

carry the pork and the grease that the American workman must have to sustain war production, plus great tonnages for the British and the Russians.

• **Wickard Sees a Way**—Last year, Claude Wickard, who succeeded Wallace as Secretary of Agriculture, and R. M. Evans, then head of the Agricultural Adjustment Administration and now a governor of the Federal Reserve Bank, saw what could be done in rigging the grain market so as to induce corn-and-hog farmers to raise more pigs and to put more weight on their hogs. Wickard was raised on a corn-hog farm in Indiana, and Evans farmed out "where the tall corn grows" in Iowa. They compromised on a guaranteed price of 9¢ for hogs when the market was quite a bit lower. That move has proved itself. The risk of hog prices getting out of hand now seems definitely to have passed and the system has taken hold more firmly than ever. And here is how it works:

The price of corn has been steadied by government control at around 85¢, which happens to be about 85% of parity. The average price of hogs in Chicago went up to \$12.35 a cwt. in March. On the 11 to 1 corn-hog ratio, that meant the corn farmer could get \$1.12 a bushel for his corn as pork.

• **More Sows, More Pigs**—Last year when the hog price was guaranteed at 9¢, farmers kept more sows and raised more pigs. These last year's pigs began to come to market as fat hogs late in the winter. As the spread between corn and hog prices began to widen last fall, farmers kept still more sows to raise still more pigs this spring. And since a sow drops an average litter of six pigs twice a year, the possibilities of increasing the fat-hog population are enormous. Farmers in the past have shied away from too great increases in hog numbers, because that soon meant lower prices from the packers. But now the ever-normal granary plan stabilizes the spread.

• **Holding the Line**—If the price of corn begins to get out of line, the government sells some of its millions of bushels in storage. This has worked out all but once. Last winter it seemed unwise to let go any more corn when the price of that cereal was going up. So the AAA boys put up chips in the shape of a 100,000,000 bu. of wheat for livestock feed. That bet stopped the speculators cold.

With vast stocks of corn and wheat in government hands, the price of corn can be kept about where it is wanted to induce farmers to raise more pigs and to put the weight on them. The farmers are happy, because about 85% of all corn raised is fed to livestock close to where it is produced, when hogs, cattle, and milk products are bringing good prices. At \$1.12 for corn on foot, the boys on the land get above parity.

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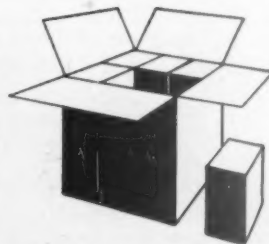
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More Than Cooties

Insecticide supplies are adequate for '42, but shortages threaten serious problems for farmers and soldiers in '43.

Insecticides, disinfectants, and fungicides are coming in for 1942 attention on the theory that it will hardly do to maintain a military front against Japs and Germans and leave a breach on the domestic front through which insects can walk. High crop production requires adequate protection from insect attacks. Moreover, there are certain problems common to soldiers at any time, and others that become important when men must serve in tropical areas.

• **What's Ahead**—Right now the insecticide news for 1943 looks definitely not good, a fact which will become increasingly apparent as 1942 runs out. The situation will be felt first by householders combating mosquitoes and roaches (see WPB Order M-133 shutting off household use of rotenone dusts as of Apr. 14).

Crop protection and military safeguards are on the whole assured for this year, but lost trade areas and domestic shortages in materials will bring increasing complexities.

Cutest maneuver in the current field is of interest first to the Army and to airways crossing yellow fever belts. It is a new application of pyrethrum developed by researchers Goodhue and Sullivan of the Department of Agriculture at Beltsville (Md.). By suspending 0.6% of superrefined pyrethrum and 2% sesame oil in a cartridge of freon gas, a penetrating toxic action has been obtained. A few puffs in one room of a laboratory building were found to have a range of efficacy extending down a long hall and up one flight of stairs within ten minutes, killing all mosquitoes.

In a post-war period the product, Aerosol, will interest farmers. Now it is important to the military.

• **Raw Materials**—One happy circumstance in the insecticide field is the industry's habit of accumulating raw materials in the fall for winter manufacture and distribution the following spring and summer. Hence 1942's outlook is not bad, since good stocks were held last September. One prompt trouble spot is in rotenone-bearing roots, mostly derris from the Dutch Indies, cubé from Peru, and timbo from Brazil.

Estimated consumption requirements for 1943 of 8,500,000 lb. will have to be met with no carryover, importation of a possible 5,000,000 lb. from Peru (that is a Peruvian promise to double her forwardings) and a dubious 1,000,000 lb. from Brazil. By the end of summer all derris stocks here will be exhausted.



The gas bottle applicator for the new super-insecticide, Aerosol, is as noteworthy as its contents—both developed by Dr. L. D. Goodhue of the Department of Agriculture.

• **Pyrethrum Pinch**—Red squill rat-killer is out for the duration since supplies come largely from Adriatic shores. Pyrethrum will become increasingly touchy. In the next 12 months we will need at least 22,000,000 lb., double usual consumption, and since the source now, with Japan out, is almost wholly the Kenya plateau of East Africa, shipping uncertainties will determine whether the present adequate flow can be maintained.

Brazil and Peru would have to have higher prices to contribute even a fraction of needs (pyrethrum likes a tropical zone, 5,000 ft. elevation and very cheap labor). Kenya has an edge over the rest of the world since the crop there is harvestable ten months out of twelve.

• **Copper-Bearing Mixtures**—Sulphur and sulphur compounds are safe, with our big natural reservoirs, but paris green and the other copper-bearing mixtures, lead arsenate, and the seed disinfectants containing mercury are hurt wherever manufacturers have not already processed the year's supplies. Nicotine is about static, dependent as it is on the stems and waste of the tobacco industry, which means demand will surpass supply soon.

There are possibilities of escape from one product to another, but these are not enough. Petroleum provides a new source for cresylic acid and tar acids for strong disinfectants and animal dips, and we can make sodium fluosilicate, which used to come partly from Denmark, to be used as a substitute for arsenic in case of a grasshopper plague. There is also plenty of creosote oil, whose use aside from wood preservation jumps up fast when chinch bugs invade the corn belt.

• **Planes and Pilots**—For dusting cotton

the availability of airplanes and pilots will be more of a problem than the dust, calcium arsenate, in which the supply will be a little short of apparent needs. One hurdle of the arsenicals is that heavier manufacture of glass is taking more and more arsenic. The cyanide gases for fumigating stored grains (a growing field) can be drummed up.

A more hopeful angle is the progressively more effective and economical use of available materials. That progress will not cure impending shortages, but it is certainly in the right direction and there is no shortage of ingenuity.

Waxy Gets a Job

A variety of hybrid corn, it may substitute for tapioca. And what flavor do you like on your postage stamps?

One hundred bushels of Waxy Iowa Hybrid 939 are at work licking a problem created by the Japs, according to the Department of Agriculture. The meager seed stock of Waxy, a corn curiosity, has been developing more seed this winter at Beltsville, Maryland, and will go to work again this spring at the Iowa Experiment Station. Object is to replace 350,000,000 lb. of tapioca formerly imported from the Netherlands Indies.

• **Long-Standing Complaint**—By 1944 or 1945 reasonable commercial production may be under way in the new corn strain which, because of a waxy endosperm, produces starch with tapioca characteristics. Domestic starch producers are not going to hold their collective breath, however. They have maintained for a long time that of the 350,000,000 lb. which the Dutch have been sending here duty free, at least 300,000,000 lb. have been used because the Indies tapioca was available at 2¢ a lb. against 4¢ to 4½¢ for domestic corn and potato starches. The other 50,000,000 lb. has been used for adhesives on government stamps and envelopes, for special textile coatings, and in other industrial uses.

Claim is that white potato, sweet potato or modified corn starch would produce stamp adhesives equally efficient, but with a different flavor, and do other jobs as well as cassava and arrowroot from the Far East.

• **Some Potentialities**—The current shortage may well revive budding efforts to establish a sweet potato starch industry in the South, may also encourage white potato starch and cornstarch makers to dig deeper into the ultrafine starch business. Net observation of the domestic industry is, however, that Waxy will be welcome, but that there is, after all, no starch shortage.



MUCH FASTER and smoother is the rolling of Uncle Sam's army these days—caissons and all. That's because of mechanization and to rubber that's made with the aid of valves. Transforming the raw ingredients of rubber into husky tires and tractor shoes is done with steam, water, and chemicals, and so, control of the entire process depends on valves.

Modern rubber making typifies the vital role of valves in power and light generating plants and in every factory

needing fluids to make its products. Your plant, most likely, is one of the countless majority where the turn of a valve starts or stops the flow of power or, regulates the quality and speed of a manufacturing process. Valve dependability counts most—then!

That explains why industrial management pays such close attention to piping, also, why so many plants standardize on Crane valves and fittings. They're backed by an 85-year record of leadership in flow control design.

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PRODUCTION

Ceramics' Big Role

Various fired products of potter's art loom importantly as substitutes for materials that are gobbled up by the war.

Don't let early childhood impressions get in the way of your business and engineering judgment when you consider ceramics as substitutes for the plastics, aluminum, alloy steels, nickel, copper, zinc, rubber, and other critical materials which WPB is not going to let you have for your 1943 production. The heirloom china which you may have broken in your tender years had little in common with the high-strength porcelains, vitreous china, porcelain enamels, stoneware, and other fired products of the potter's art which modern ceramic technology is giving us.

• **Resistance to Abrasion**—If you are looking for abrasion resistance, a typical piece of industrial white ware will wear longer than practically any common material you can name except rubber automobile tire tread stock and manganese steel. And it has been found that specially compounded ceramic sand blast nozzles will outwear manganese steel. Hard vitreous tile, used to line coke chutes, will outlast both steel and rubber.

If you want chemical resistance, ceramics will withstand almost any compound but hydrofluoric acid. They are harder than most plastics, hard rubber, and common nonferrous metals. They are about the same as glass, are only softer than certain alloy steels and chilled cast iron.

• **Comparative Strengths**—According to figures prepared by WPB's Bureau of Conservation, compressive strengths range from 25,000 to 80,000 lb. per sq. in. Other ranges, for comparison, are: aluminum alloys, 9,000–47,000; thermo-setting plastics, 16,500–45,000; zinc alloys, 7,000–20,000; ferrous alloys, 55,000–400,000.

Tensile strengths are less favorable, 1,500–10,000 lb. per sq. in. Figures for comparison are: aluminum alloys, 13,000–68,000; thermo-setting plastics, 6,000–20,000; zinc alloys, 7,000–13,000; ferrous alloys, 40,000–400,000. Ceramic specific gravities range from 1.8–4. Specific gravities for aluminum alloys are 2.65–2.95; for thermo-setting plastics, 1.34–2.86; zinc, 7.14; ferrous alloys, 7–7.8.

• **Tensile Factor**—Strangely enough until you understand the basic reason, ceramic engineers and manufacturers do

not worry much about tensile strength. If a part does not prove to be strong enough, they simply make it thicker with little penalty except added weight.

It is no pun to say that their raw materials are cheap as dirt, because that is fundamentally just what they are. The "biscuit," for instance, for a typical electrical porcelain for insulators, fuse boxes, etc., is made simply of 50% clay, 30% fluorspar, 20% flint—in other words a good beach sand, free from iron. The typical shiny finish is vitreous glaze made of glass with certain metallic oxides added for color and other physical or electrical characteristics. Other ceramics require other combinations, most of them less expensive than the general run of industrial materials that they might reasonably replace.

• **Dimensional Tolerances**—Far more of a worry is the maintenance of dimensional tolerances in ceramic parts used in mass production assemblies, principally because an allowance must practically always be made for shrinkage, and sometimes warpage, during firing. And you can't very well eliminate firing, for that's the vital process that fuses the various clays and sands and oxides into a homogeneous, virtually ageless whole.

Ceramic engineers know only too well that it's one thing to produce table and cooking ware to "reasonable tolerances," and another to achieve highly complicated electrical and mechanical parts with dimensions precise enough to permit their assembly with other precision metallic and nonmetallic components.

• **Makers' Methods**—The traditional potter's wheel, the "slush mold," and the pressure mold all have their established places in the ceramic art. Both types of molds are usually made of inexpensive plaster of Paris, the first being used in the "wet process" for slushing around a slurry of porcelain clays until a sufficient thickness for a particular hollow piece has dropped out of suspension, the second for pressing moist clay into desired form by the "dry process." But for anything involving precision, several newer methods have been worked out.

One of them, developed a little over ten years ago, molds a part to oversize dimensions, ready for a preliminary firing which shrinks it some, but leaves it soft enough for machining with standard machine tools. Final firing shrinks the part still more, but the machining is done to a "shrinkage scale" that precalculates final dimensions accurately.

• **Mica and Glass**—Another method simply calls for machining rods and sheets (up to 1 in. thick), which have been previously hot-pressed out of a patented mixture of mica and glass, into various forms and shapes.

NEW OCCASIONS...

While war's shortages raise havoc with time-tested industrial processes, they also throw into the limelight from time to time old standby methods and products which, unaffected by priorities, are able to rise to the occasion and take over jobs formerly performed by unrelated branches of manufacture. The accompanying article on ceramics reveals ways in which one of the oldest industrial processes known to man—the potter's art—is being adapted to the exigencies of the world situation. And, incidentally, it is finding new civilian uses which may mean important business in the postwar years.

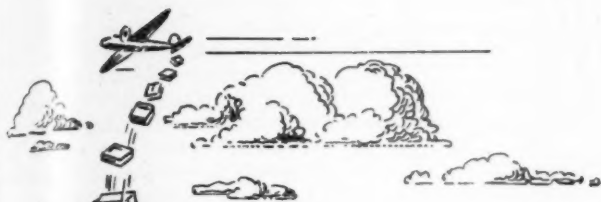
Still another method molds into accurate forms a similar mixture of mica and glass under heat and pressure after the manner of a synthetic plastic. Neither the machined shapes nor the moldings are fired during the processing in fact they begin to soften at temperatures around 780 F. But their other mechanical and electrical characteristics are so like those of porcelain that many engineers consider the mica-glass combination a true ceramic.

• **Patented Process**—A fourth method which began its commercial career about a year ago, produces an undeniably true ceramic by a patented process which is neither wet nor dry. Molds are steel, not plaster of Paris, precisely machined to dimensions which will produce an oversize biscuit, but an accurate piece of porcelain after it has shrunk during firing.

Clays are blended to a closely controlled water content and compacted under such heavy pressure in the mold that any tendency to warpage during firing is minimized. (Afterwards they will never warp at temperatures under 2,400 F.) The end results are dense high-strength parts with a guaranteed accuracy of $\frac{1}{4}$ in. per in. of dimension as it comes from the kiln. If greater accuracy is required, the porcelain can be ground, not machined, to any degree of dimensional tolerance required. The size of such parts is limited to a maximum of 120 sq. in. projected area by the size of molding presses available.

• **General Range of Sizes**—In the general run of ceramics, there are practically no size limitations as witness the range from tiny porcelain beads, threaded or X-ray wires as insulators, to man-size all-porcelain and porcelain enamel bathtubs, to almost gigantic stoneware chemical processing tanks and sewer pipes. The general rule is: If you can find a big enough kiln, you can fire it.

The best of it is that you can find



GLASS BOMBS FOR VICTORY

STEEL SAVED IN AMERICA IS STEEL SAVED FOR
EQUIPMENT ON THE FIGHTING FRONTS . . .



THE great need for huge plants to house essential machinery and equipment to carry on our war effort, and the scarcity of materials from which they can be constructed, constitute an increasingly serious problem. Architects and engineers, always conscious of available materials for a given requirement, now must function on an even higher plane of selectivity, utilizing alternates more extensively.

Almost the entire supply of some very basic materials must be melted and molded into implements of war. The extent to which less critical materials are utilized will have a definite bearing upon the time required to bring the war to a successful conclusion.

Time, the essence of vast production under any circumstance, is infinitely important to the nation today . . . for lives will be saved or lost in almost direct ratio to the time required to equip our men with ammunition, armament and planes.

In the construction emergency created by war, Owens-Illinois is happy to be in a position to serve with its Insulux Glass Block.

Insulux' uses are many and varied . . . for large areas in new buildings, which supplant substantial quantities of critical materials . . . for maintenance, so essential to continued service under severe production pressure . . . for repairs and rehabilitation within the scope of government regulations.

Glass ingredients, fortunately are native and still available. Glass in the form of Insulux blocks, minimizes the use of critical materials to a high degree—while bringing to building, possibilities for speedy erection along with insulation and light control.

Send us your inquiries. We promise the very best that's in us for the solution of construction problems which confront you under these war conditions.

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kilns in a dozen states from New Jersey to California, wherever clays and fuel and skill abound. According to the 1940 census, there were 290 plants with 33,105 employees turning out pottery and related products to the tune of \$98,883,708 annually, to say nothing of more than 1,000 plants working on brick, tile, terra cotta, sewer pipe, clay refractories, and other clay products that should be classified as ceramics.

• **Military Materials**—At the recent annual meeting of the American Ceramic Society, Rexford Newcomb, ceramic consultant of the Bureau of Industrial Conservation and managing editor on leave from Ceramic Industry, reported that the ceramic manufacturing industry

has already fulfilled and is now working on substantial contracts for materials going directly into the military service.

The porcelain enameling group has delivered a big volume of enameled steel hospital ware, some kitchen ware and table tops, and is working on designs for porcelain enameled engine mufflers, and chairs and lockers for Navy use. The whiteware group has furnished the War Department with vitrified dinnerware, steatite electrical instrument parts, porcelain knobs, tubes, and outlet boxes for cantonment wiring, and is now developing all-clay service sinks and grease traps.

• **Civilian Adaptations**—Thus far, civilian industry has drawn less on ceramics

than on wood and glass for materials to replace the long list of shortages. Agitators for washing machines have now run the gamut from aluminum to plastics to porcelain enameled steel and cast iron, and if the ferrous shortage develops may go to all-porcelain. One hair drier for beauty shops has undergone similar transformations. Porcelain buttons replace plastic and pearl buttons. Mechanical refrigerators might be made of porcelain enamel or all-porcelain, if WPB would let them be built.

Though porcelain containers have been used in France and England for face creams, lip sticks, and other cosmetics, the field is wide open here. What's more, they can be decorated and labeled more inexpensively and attractively than ever before with newly-developed decalcomanias produced by photo lithography. At least one automotive engineer was working seriously on ceramic carburetors, when the automotive industry was converted.

• **Tile As a Liner**—Ceramic tile is about to regain from rubber the place it once occupied as a liner for chemical processing and storage tanks. And the Tile Manufacturers Assn. is plugging pretty hard on a nonskid tile bathtub to be built on the job by a tile contractor. Ceramic housings for table radios, clocks, toasters, and other electrical appliances will probably be ready when the resumption of manufacture is permitted.

Meter housings, pump housings and impellers, oven vents, end frames for small motors, bed plates for small machine tools, flashlight cases, and weighing scale bases are all being considered. Even ceramic grinding plates to replace steel in coffee grinders are in the experimental stage, which ought to resolve all qualms about the strength characteristics of the versatile material.

• **Kilns in Demand**—Plentiful as ceramics are, there is one thing that may interfere with their full use as replacement materials. The steel committee of the Army and Navy Munitions Board has told the ceramic industry that tunnel kilns are needed for annealing 10,000 tons per day of armor-piercing steel stock. Based on an estimated 200 tons per day per kiln, this would require the full use of 50 kilns, but that ought to leave quite a few for ceramics at that.

CAR BUILDER TO BUILD SHIPS

"One a week," is the production schedule for 50 all-steel, diesel-powered, antisubmarine patrol ships set up by the Navy for the Pullman-Standard Car Mfg. Co., in a new shipyard now under construction "in the Chicago region." Large ship sections will be fabricated in the company's car shops for final assembly on the ways.

The Navy's decision to utilize car-building facilities is based not only on Pullman-Standard's extensive equipment

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Today, in hundreds of nationally-famous plants, Porter-Cable G-8's are taking over many operations usually done on millers, planers, surface grinders, shapers—and doing those jobs 5 to 10 times faster to tolerances as close as .0005". They're handling all types of materials—hard and soft metals, stainless steel, alloys, plastics, glass, hard rubber—with no heating, fracturing, discoloring or dust. They're stepping up production, lowering costs, smoothing the flow of work—all at a fraction of the equipment-cost of larger major machines!

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for working heavy steel, but on the fact that many of the trades employed in building cars are identical with those in shipbuilding—welders, riveters, pipe and frame fitters, electricians, sheet metal workers, joiners, painters, cabinet makers, plumbers. Several thousand new workers required will be trained for these and other shipbuilding trades by the public vocational schools.

Design details of the new all-steel subchasers are kept under wraps by wartime censorship, but they are understood to be larger than the 110-ft. patrol boats now in service on the Lakes and elsewhere. Ship assemblies will begin "in early summer."

Florida "Rubber"

Huge planting of cane, sweet potatoes, and peanuts in Everglades is proposed as a new source for synthetics.

World War I sparked a big industry as chemists delved into coal tar derivatives. Research at the present time is showing unmistakable trends toward plant life as a source of vital essentials such as synthetic rubber, oils, and the several alcohols, solvents, and acids used primarily in the production of lastics, material with rubber-like qualities. Thus, science proposes to substitute replaceable supplies—growing things—for some of the irreplaceable sources of geologic vegetable matter such as coal.

Business Man's Idea—Down in the heart of the Florida Everglades, a New York City business man is proposing to expand his sugar venture by growing enough additional acres of cane, sweet potatoes, and peanuts to produce the essentials for some 90,000 tons of synthetic rubber.

Clarence R. Bitting, president of United States Sugar Corp., asked independent farmers of the Lake Okeechobee region last week to go 50-50 with his company in utilizing 100,000 acres of overflow land to produce carbohydrates for rubber. From the juice of the cane and sugar of the starchy sweet potato (which grows bigger than a man's head) are derived the essentials for an oil-resisting lastic. This, according to Bitting, is regarded by Department of Agriculture experts as better for some purposes than crude rubber.

Abrasive Resistance—Protein of the slowly peanut is added to give the product abrasive resistance. Cane tops, and vines of the sweet potato, and peanut, plus peanut meal, would make a cattle feed for the cattle industry of Florida, second state in range cattle production but unable to finish much of its beef for the table because of the high cost of shipped-in feed.

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NEW PRODUCTS

Duplicating Aids

War work requires many copies of orders, production records, invoices, letters, and the like. One efficient way to secure more copies than can be handled with carbon paper in a typewriter is to type a hektographic original and let a spirit duplicating machine take care of all duplicates. To expedite the whole process, Old Town Ribbon & Carbon Co., 750 Pacific St., Brooklyn, has developed two new aids: (1) the Hi-Test Master Hektograph Unit (for form work) consisting of a printed paper form for the original, backed by a single-use hektograph carbon to be torn off before the typed original is inserted in the duplicator; (2) the Hi-Test Hektowriter Ribbon (for letter or form work) with a "clean strip" of uncoated paper at each end to make threading and rethreading the typewriter a less mussy job.

Cylinder Head De-Freezers

The longer a car or truck runs between "valve and carbon" jobs, the more time rust has to "freeze" the cylinder



head to the stud bolts. To dissolve such rust and free the head for removal, Anti-Rust Corp., 340 Canal St., New York, has formulated Rozene Penetrating Solvent for application directly to the studs through little new transparent jiggers molded out of du Pont Plastacele plastic and called Rose-Cups. These come in two sizes to fit $\frac{1}{8}$ - and $\frac{1}{2}$ -in. studs. Screw them on, pour in solvent, let it work 30 minutes or so.

"Chempruf"

Plating tanks, acid tanks, fume ducts, pipes, and other equipment, normally protected with rubber linings, can now be lined with Chempruf, a rubberless

new material compounded in two types by Protective Coatings, Inc., 10591 Northlawn, Detroit. Type A is a heavy brush-on liquid; Type B is a plastic for heavy-duty service involving mechanical wear and tear. Tests indicate that either type will withstand 50% solutions of nitric, sulphuric, hydrochloric, or hydrofluoric acids, and saturated solutions of various caustics. The softening point is 300F; the melting point, 510F.

Pre-Finished Panels

When the interior of an office, store, home, or other building is remodeled



with one or more of the three new plastic-coated Barclay Panelboards, no painting or other finishing is required. Barclay Mfg. Co., 385 Gerard Ave., New York, produces them in ten colors and three types—tile board, plain panel, and streamlined board—in sheets up to 4x8 ft. The surface is proofed against water, stain, and vermin, and may be cleaned with soap and water.

Tire Mileage Extender

Laboratory and driving tests indicate that an application of Rubber-Life every 500 miles to the tires on passenger cars, trucks, and buses will extend their useful life by several thousand miles. The material, produced by Overman & Co., 30 Rockefeller Plaza, New York, is an odorless liquid, "free from acids, mineral oils or their byproducts, alcohols or other chemicals which would deteriorate tires... not inflammable, not combustible, not explosive." It is applied only to the treads of tires with a clean brush or cloth and allowed to soak into the pores of the rubber for at least an hour. It is not necessary to remove a tire from a wheel for treatment with Rubber-Life, but it must be jacked up clear of the ground.

LABOR

NWLB's Course

Lineup on union security in Federal Shipbuilding case indicates what may be expected in the Little Steel showdown.

Reaffirming of a maintenance-of-membership award in the Federal Shipbuilding case has brought all of the National War Labor Board's union security decisions under critical appraisal.

• **A Middle Road**—Walking a tight rope between what unions are determined to get and what employers are determined not to give, the board has devised various compromises, many of which have drawn a crossfire of denunciation.

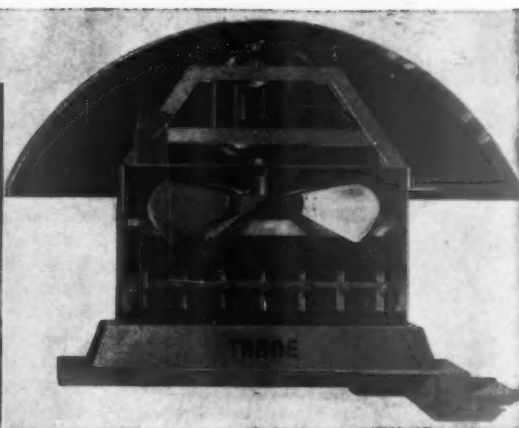
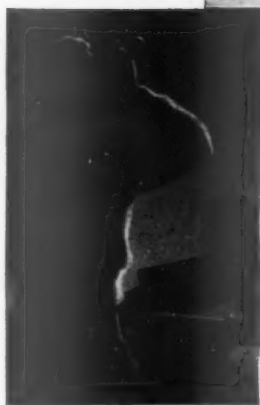
To date, NWLB has not directed any employer who has come before it to go all the way and grant either the closed shop or the union shop—the two all-out union security schemes. Under the closed shop, every employee hired must, as a condition of being hired, be a member of the union. Under the union shop, the employer may hire anyone he chooses, but the new worker must become a union member within a stated time and must remain a member in good standing.

• **The "M. of M." Issue**—Of the compromises that have taken form, maintenance of membership has attracted most attention. In the Federal Shipbuilding case, "m. of m." originally meant that each employee who was a union member when the company signed its labor contract, or who became a member subsequently, had to remain in good standing or be discharged.

To give effect to such a covenant, the union provides the company with a list of its members, to which it adds new names as members join. When a man whose name is on the list becomes delinquent in his dues or violates some union law carrying loss of membership as a penalty, the company is notified and the worker is discharged.

• **A Modification**—Last week, NWLB made one modification in the original Federal recommendation that was handed down by the old National Defense Mediation Board. After pointing out that "m. of m." does not require any worker at any time to join the union, and that any worker who refuses membership is protected by the contract against duress and coercion, NWLB decreed that the union could not obtain a worker's discharge on any other ground than nonpayment of dues.

In making this modification, the board gave any Federal employee who is a union member the right to with-



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Check-List of Advantages of TRANE BLACKOUT VENTILATORS

1. Available in three models: Summer Supply Unit, Winter Supply Unit, Exhaust Unit.
2. Absolutely light-proof and weather-proof.
3. Provide soundly engineered positive ventilation.
4. Easy installation and maintenance.
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6. Any of the usual types of diffusion outlets may be used.
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11. A part of the nation's most complete line of Heating, Cooling and Air Conditioning equipment—the Trane line.

HERE is positive ventilation designed especially for blackout plants—in fact, for all buildings erected in the modern wartime blackout type of construction.

The summer months are immediately ahead. Now is the time to equip your buildings with proper ventilation. Trane Blackout Ventilators, which provide this positive and economical ventilation, are engineered to meet the requirements of large building areas and to meet conditions imposed by a "blackout."

Trane Blackout Ventilators are available in three basic models to serve the three ordinarily desired functions. These three models are: (1) Summer Supply Unit, designed to provide large volumes of outside air with perceptible air motion at all times. (2) Exhaust Unit, identical in appearance with the Summer Supply Unit, an exhaust fan arrangement whereby the air in occupied areas is exhausted from the building. (3) Winter Supply Unit, which features an arrangement with heating coils, face and by-pass dampers, and propeller fan. Practically any diffusion scheme may be used.

Weather-proof and light-proof, Trane Blackout Ventilators have reliable capacity ratings and are your assurance of positive ventilation at all times. They are not affected by the wind or elements.

Write now for your copy of Trane Bulletin DS-364, describing Trane Blackout Ventilators—or, better yet, check with the Trane representative in your area who has complete data on this as well as other Trane products for wartime application.

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draw from the union. But, in such a case, NWLB said, "he must, as a condition of employment, continue to pay his financial obligations to the union for the duration of the contract, which has little more than a year to run. A member of a club has no more freedom and no lighter obligation."

• **Division of Board**—NWLB's Federal Shipbuilding decision, like most of its orders concerned with union security, split board members eight to four—the employer representatives dissenting from the public and labor members.

The basis of employer dissent was a refusal to subscribe to a labor policy which was described as compelling "an unwilling employer to force an unwilling employee either to join or to remain a member of a labor union in order to play his part in winning this war." If a government agency means to do this, the dissenters said, "then govern-

ment must of necessity accept the responsibility of the supervision of that labor organization to which it forces an employee to pay dues, fines, and assessments."

• **Walker Turner Case**—This demand for government regulation of unions whose security is established by government order is an unmistakable harking back to the NWLB decision in the Walker Turner case (BW—Apr. 18 '42, p. 75). In that decision, "m. of m." was awarded to a union but definite restraints were placed on the union in order to prevent it from using the contract to exploit its members.

As counter-proposals to the NWLB's majority decision for dealing with the dispute at Federal, the employer bloc offered two alternative formulas. The first one would provide continuance of membership as a condition of employment for all employees "who volun-

U.S. Steel on the Spot at Kearny

The board of directors of the United States Steel Corp., top management control for Federal Shipbuilding & Dry Dock Co., at Kearny, N. J., met in New York this week and reported on some of the problems confronting Big Steel subsidiaries. But on the most newsworthy problem before it—what the company is going to do about the National War Labor Board's decision giving a maintenance-of-membership contract to a C.I.O. union in Federal (BW—Apr. 25 '41, p. 71)—the board had little to say.

Chairman Irving Olds stated that the matter was so grave that full study of the NWLB decision by every company director was necessary before the company's position could be determined. Last August, when confronted with exactly the same problem, Big Steel rejected a maintenance of membership award and the Navy took over the shipyard (BW—Aug. 30 '41, p. 15).

And it is precisely this alternative which U. S. Steel directors must face again. Back in August, there was some question of whether the White House was prepared to back up the recommendation of the National Defense Mediation Board by ordering seizure of Federal property if the recommendation was not accepted. But now, with the country at war, the preservation of NWLB is deemed vital in maintaining labor's morale, and the President will doubtless move at once if the company turns the board down.

For the four months during which the Navy operated Federal, profits of the enterprise were impounded.

When U. S. Steel got its subsidiary back, the impounded profits were handed over to Federal's owners, minus a nominal "management fee" which the Navy deducted. There is no reason to believe that any different arrangement will be operative if private management is displaced again. Hence, in deciding what to do, U. S. Steel directors will not be influenced by financial considerations.

What they will be pondering is the effect of their decision on the vast steelmaking operations of the company, compared to which the Federal yards at Kearny are small. The C.I.O. has petitioned the National Labor Relations Board for an election in the corporation's Carnegie-Illinois plants. If it carries that election—and the union obviously expects to—Big Steel will be asked to sign a union-shop contract for its mills. A refusal will start the dispute on its way to the National War Labor Board and the "maintenance of membership compromise" will again be at issue.

If Big Steel accepts "m. of m." in Federal, it will come before the board in the future with its position against such an award seriously impaired. For one of the basic points in the company's argument against "m. of m." in the Federal hearings was that "it is illegal."

But if U. S. Steel doesn't accept "m. of m.," it can anticipate calumny and defamation in every war-time speech by a New Dealer in which the speaker needs a scapegoat. The corporation will be used as a symbol of "big business defying the national interest."

Air Conditioning Wears Overalls

... and is doing a man-size job in America's war production.

If, when air conditioning is mentioned, we think only of cool theatres...more comfortable restaurants, shops and homes, we overlook one of the most vital services of this great industry.

Today, in thousands of manufacturing plants, air conditioning "wears overalls"...takes an important part in actual production processes...helps produce more and better steel...increases the quantity and improves quality of many other munitions of war.

Blast furnaces, for instance, use twice as many tons of air as iron ore! When air is conditioned the furnaces turn out much more iron, save thousands of tons of coke...Air conditioning helps build planes that fly higher and faster...safeguards powder...increases accuracy of fuses...makes possible closer precision work. In thousands of factories air conditioning *speeds production for Victory.*



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REFRIGERATION, AIR CONDITIONING, ENGINE,

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tarily certify in writing thereafter (after such a contract is signed) their willingness to remain members of the union during the life of the contract."

• **Marshall Field Formula**—This is the now famous "Marshall Field formula," which NWLB suggested in a union security dispute between the Textile Workers Union (C.I.O.) and Marshall Field's manufacturing division (BW—Mar.7'42,p14). It was voluntarily accepted by both parties to the dispute, and was never formally ordered by the board.

The other alternative proposed by employer members of NWLB in the Federal case is a variant of the Marshall Field contract. It would provide that, after a membership maintenance contract is entered into, "each employee who is a union member shall be given a definite opportunity, within a stated time, to resign from the union. If he fails so to resign, he would then be required, as a condition of employment, to remain a member in good standing for the contract period."

• **Significance**—These counter proposals indicate just how far management representatives on NWLB are prepared to go in coming to terms with union security demands.

The Federal decision, though important in itself because it concerns a vital war plant subsidiary of the United States Steel Corp., is hardly to be taken yet as a governing precedent for NWLB. The history of the case, with its background of Navy operation (BW—Apr.25'42,p71), makes it unique. But as a more certain signpost of the way the board will move on the union security question, the coming decision in Little Steel, due within a month, will overshadow Federal. And a midweek strike at Bethlehem Steel's Johnstown coke ovens prodded NWLB into speeding up its Little Steel hearings.

• **Possible Settlements**—The employer proposals in Federal will surely be considered as possible settlements for Little Steel. The unusual International Harvester award will also be reviewed. That decision provided for "m. of m." by union referendum. In the first government-agency-sponsored poll of its kind, union members (BW—Apr.18'42,p7) will ballot in eight Harvester plants on whether they want to be bound by a contract under which they must maintain their union membership or be fired.

Slated, too, for consideration in Little Steel are the black and white of union shop and open shop, respectively demanded by C.I.O.'s Steel Workers Organizing Committee and the four steel companies. But, with the point of view of the majority what it is and with the employer members showing a willingness to accept some form of union security guarantee, one of the in-between shades of gray seems the likeliest outcome.

Facts on Redcaps

Senatorial study shows that there are fewer porters now that wages are paid, but those remaining earn more.

Perhaps the most colorful and enduring of the controversies initiated by the wage-hour law has raged now for three years over the status of railroad redcaps. One of its results has been the almost universal passing of the venerable system of paying for baggage-lugging service by arbitrarily decided on tips. Practically all railroad terminals now levy a flat 10¢-a-bag charge, collected by the redcap, for every item carried.

Another byproduct of the controversy has been unionization of the redcaps who have banded together to fight against what they consider to be a threat to their economic rights.

The main points in controversy, which line up the Wage-Hour Division and the terminal companies against the porters' organizations, are three issues:

(1) Whether existing practices sur-

rounding the employment of redcaps violate the letter or the spirit of the Fair Labor Standards Act.

(2) Whether the practices can be regulated under existing provisions.

(3) Whether amendments are necessary.

All these points are different ways of saying the same thing as far as the redcaps are concerned. It boils down to, "We're getting gypped and what can be done about it?"

• **Waiting for Report**—Last July a Senate committee undertook an investigation of redcap pay and called for a comprehensive report on the effects of the minimum-pay law on redcaps from the Wage-Hour Division's research and statistics branch (BW—Sep.6'41,p52). That report has been in preparation all this time. It acquired additional importance two months ago when the United States Supreme Court decided, in two railroad terminal employee cases, that tips count as wages (BW—Mar.7'42,p77). Such a ruling, taking a slice out of redcap income, made redcap unions more intent on proving that a law, passed with the announced purpose of raising substandard wages, had actually lowered their earnings.

This week the report finally was submitted to the Senate. Based on 5,250 pages of sworn testimony of 144 witnesses and upon hundreds of exhibits, the report is a finding of fact which does not draw any conclusions regarding the controversial points at issue. It is in effect an exhaustive analysis of the redcap's status before and after the passage of the Fair Labor Standards Law.

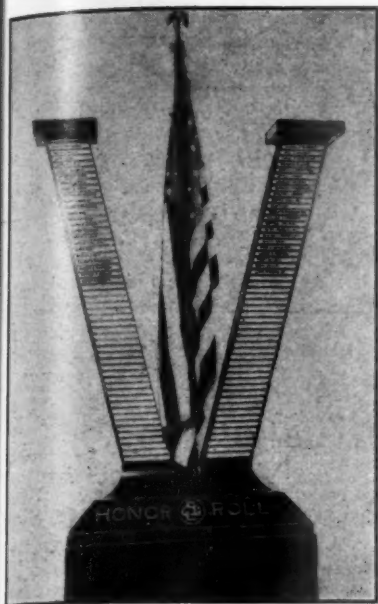
• **Counting the Tips**—Before the wage-hour law became effective, the analysis shows, about 70% of the nation's 4,500 redcaps had worked for tips only. When the law went into effect, requiring the payment of 25¢ an hour as a minimum wage during its first year, railroads and railway terminal companies generally insisted that tips received by redcaps were part of the wage. Redcaps were required to account for all tips received, with employers agreeing to make good any difference between the amounts so received and the minimum.

This system, known as the "Accounting and Guarantee Plan," was not satisfactory to redcap unions—the Brotherhood of Railway Clerks and the United Transport Service Employees of America. The railroads, the unions, and the Wage and Hour Division soon became involved in discussion, complaint, and litigation relative to the plan. The investigation indicated that in many instances redcaps, because of fear of discharge for failure to report tips in an amount equal to the minimum requirement of the Wage and Hour Law, falsified their reports.

• **Another Change**—During 1940, the railroads and terminals generally abandoned the "Accounting and Guarantee



The Senate hears that redcaps are better off now than they were before the wage-hour law was passed, but the boys who tote the bags think otherwise, so their redcap organization wants the statute amended.



V-PLAQUE

The V-shape of a military honor roll for employees of the Gardner-Denver Co., Denver, is not its only feature. As additional employees enter the service, their names are entered on cards which are slipped into place, on the floodlighted plaque.

Plan" and substituted the 10¢-a-bag system. The analysis reports that the new plan resulted in some passenger irritation and in strained relations between employers and redcaps. Eventually most of the difficulties were ironed out.

Hourly earning for redcaps, according to the analysis, increased from about 30¢ to more than 40¢ between 1938 and 1941. This rise was accompanied by increased total weekly earnings and a general reduction in the work week from about 56 to 48 hours, on a six-day schedule rather than seven.

• **Employment Figures**—Employment of redcaps decreased by 5% over the period of the act, from 4,486 to 4,264. The decreases were greatest at the larger stations in the East, South, and Midwest, which had paid their redcaps no wages prior to Oct. 24, 1938. Railroads and terminal companies generally cut employment slightly, supervised operations, or introduced technological changes when they had to begin paying wages. In the far West, where redcaps had for many years received salaries in addition to tips, employment increased.

By use of the "Accounting and Guarantee Plan" and the 10¢-a-bag system, the employers have avoided an additional annual payroll for redcaps of approximately \$2,000,000, which would have been required had redcaps been

paid wages and been permitted to keep all tips.

The analysis throws little light on the cost of redcap service to the traveling public. The 10¢-a-bag system may result in savings to travelers with fewer bags or in added expense to travelers with numerous bags. Many travelers have stopped using redcap service, or have let the redcaps handle only the heavier of their bags. There has been less and less personalized service given to passengers, and "mass production" systems have been developed to have redcaps handle several passengers at once.

• **Not Much to Expect**—With such information highlighting the report it seems certain that, unless the Senate decides to ignore the report entirely, the redcaps have reached the end of the trail; they may go on complaining, but there's not much that's going to be done for them.

NLRB Wins Two

Courts' decisions uphold major points of board's rulings in cases based on charges of antiunion discrimination.

Although it is overshadowed now by the more dramatic work of the National War Labor Board, the National Labor Relations Board goes right ahead writing decisions, undertaking to justify its rulings before the courts, and issuing orders which add new details to the administration of laws on labor relations. Within the last few days, two Circuit Court judgments and a board finding in the Aluminum Ore Co. case have dotted some of its crossed some of its on antiunion discrimination and refusal to bargain as defined by NLRB.

• **Discrimination Decision**—The Circuit Court of Appeals at Cincinnati found that the Chattanooga Bakery, Inc., had violated the Wagner Act by refusing employment to 27 bakers because they were members of the A.F.L. Not hiring them, the court held, is equivalent to discriminating against a union. The board's order that the 27 be put to work—even though others since hired have to be discharged—and compensated with back pay for time lost, was upheld by the court. The court made it clear, however, that the NLRB order was valid only because the employer refused to hire them because they were union members.

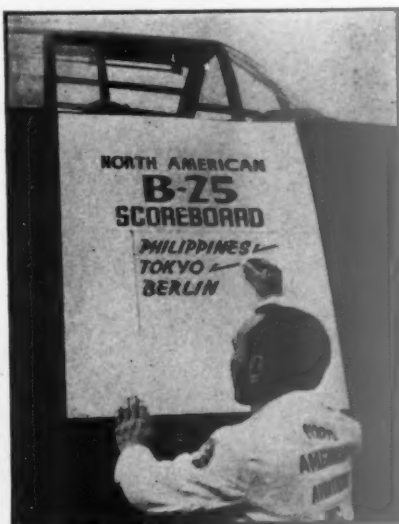
In a refusal-to-bargain charge, pressed by NLRB before the Circuit Court of Appeals at Richmond, the responsibilities of a business executive in union negotiations got a measure of judicial definition. The case involved the Great Southern Trucking Co., the main office

of which is in Jacksonville, Fla., and the role of the company's president, J. Edward Raulerson.

• **Bargaining Rights**—The Richmond court denied the A.F.L. Teamsters Union contention that, unless the president of a company dealt with it, the company was evading its bargaining responsibilities. The court held, however, that in this particular case, the labor board was right in deciding that the company had unlawfully refused to bargain because the company's president was the only official with authority to make decisions and he refused to meet with union representatives.

In the Aluminum Ore Co. case, NLRB held that the company had refused to bargain because its withholding of a schedule of job and wage classifications from union negotiators was a mark of bad faith. The board charged the employer with knowledge that such a schedule was essential to the intelligent discussion of wage rates which were being negotiated.

• **Data Not Privileged**—The company had taken the position that wage information was confidential and might not be released without the consent of individual employees. It told the union to go ahead and secure such information from employees if it wished. The board's ruling states that pay of individual employees on whose behalf the union is negotiating doesn't constitute privileged information.



SCOREBOARD

Employees at a North American Aviation plant were willing to believe two items of news recently broadcast from Tokyo (but not confirmed here): (1) that Tokyo was actually bombed, and (2) that ten North American B-25 bombers participated in the raid. For their next assignment, see the N. A. scoreboard.

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COURT HAS PEACE PLAN

A federal court—the Tenth Circuit Court of Appeals in Denver—last week offered to act in effect as a mediator in a labor dispute rather than decide upon a contempt citation asked by the National Labor Relations Board. The court acted in the interests of harmony and war production in the Colorado Fuel & Iron Co. plant at Pueblo, Colo., 6,500 of whose 7,500 employees are involved. Last June NLRB ordered disestablishment of the independent union at the plant—organizers of the C.I.O. Steel Workers' Organizing Committee claimed it was a company union—as the

official bargaining agent. Later it was reorganized and reincorporated, and in September presented evidence, accepted by the company but disputed by S.W.O.C., that it represented a majority of workers.

The NLRB claimed that its recognition was in contempt of the June order. The court, after a hearing, proposed a new election, held by secret ballot, to determine the majority representation. To decide the contempt case one way or the other wouldn't end the fighting, it said. The company accepted, provided the NLRB would go along.

In Transition

General Motors contract with U.A.W. goes to labor board at time when freezing bids fair to decide all union issues.

The National War Labor Board docketed the largest one-company case in which it has yet taken jurisdiction when Secretary of Labor Perkins this week certified that a dispute existed between the General Motors Corp. and C.I.O. United Automobile Workers Union. Such certification means that G.M. and union negotiators have come to an impasse in their discussion of terms for a new contract to replace the one which expires this week.

• **Retroactive Arrangement**—Although technically the 200,000 G.M. employees are no longer covered by a labor agreement, there is no danger of a strike and the terms of the old contract will remain in force until a new pact is signed. On former occasions under such circumstances the union and the company have agreed that the provisions of the new contract will apply retroactively to the date of the superseded agreement's expiration. A similar arrangement seems certain to prevail this time.

Although neither G.M. nor U.A.W. has yet said anything publicly about their differences, reports from Detroit indicate that most of the subsidiary issues in their discussions have been tabled. These include company demands for the creation of wage differentials, piecework pay, and curtailment of the number of union committeemen in company plants. Union claims have also been sidetracked. All will be taken up after NWLB decides on the two major points in dispute.

• **Union's Two Demands**—These are U.A.W.'s demand for a \$1-a-day wage increase and a union shop. The wage increase question will doubtless be decided by the board in the light of its interpretation of the President's directive on wage stabilization (page 15). The union-shop question may also become academic.

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**PROMINENT
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The electric furnace graphite in "dag" products is manufactured in the U. S. A.

FINANCE

Earnings Suffer

Taxes take expected toll and payrolls rise, so quarter's profits average lower. Only a few companies show gains.

Enough corporation earnings reports for the first quarter of 1942 now have been released to confirm earlier forecasts that (1) volume of business transacted would rise to new highs, (2) taxes and payrolls also would climb to new peaks, (3) remaining net profit after taxes would shrink.

Taxes Rise 155%—The National City Bank of New York figures that combined net income before taxes for the first 77 companies to report climbed 70% above that for the first 1941 quarter. Charges for federal income and excess-profits taxes, in that time, leaped 155%—more than twice as fast as profits. Taxes absorbed 48% of net income before taxes in the initial quarter of 1941, 73% in 1942.

This week the United States Steel Corp. reported net profit for the first quarter of 1942 of \$27,921,534 as compared with \$36,559,995 in the same 1941 period. Provision for federal income and excess-profits taxes for the first three months of 1942 amounted to \$39,755,482 as compared with \$11,800,000 for the like 1941 quarter. Shipments of finished steel products topped those of any previous first quarter on record.

Taxes Clip J. & L.—On the same day Jones & Laughlin Steel Corp. reported net profit of \$2,492,000 for the quarter compared with \$4,161,000 for the corresponding quarter a year ago. Provision for taxes rose from \$2,953,000 a year ago to \$5,420,000.

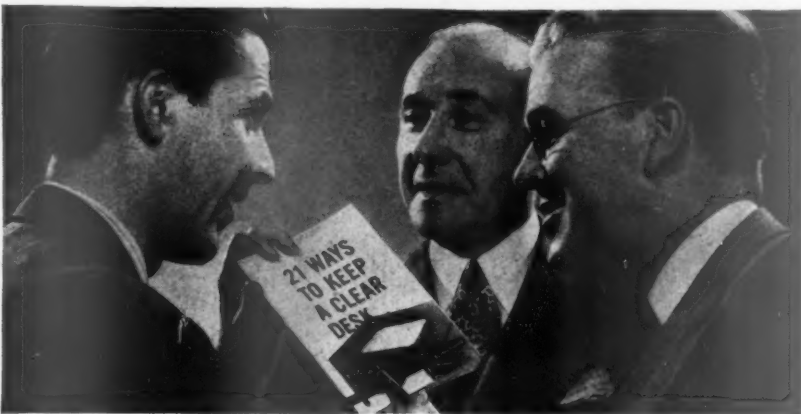
General Motors Corp. also reported this week. Automobile companies are in unique positions, for with complete cessation of passenger car production at the end of January, the companies undertook nearly complete changeovers to the production of war materials. At present, 90% of General Motors production is devoted to war purposes. Net income in the first quarter amounted to \$3,230,000 compared with net of \$64,998,000 for the first three months of 1941. Next quarter the difference should be narrowed, for the changeover now is nearly complete.

War Earnings—Reo Motors, long a laggard in the motor-car race, began earlier to switch completely to production of war materials. As a result, the company reported net income of \$1,900,000 for the first quarter compared

Six more gone this week... no wonder we're in a jam!



"THE WAR HAS shot our force full of holes. We're busier than ever and we've got fewer experienced men to do the work. Our new people are not the answer. They try hard, but it's mostly waste motion. To keep pace with war-time conditions, we've got to get organized more efficiently. Maybe we ought to make more use of paper and printing. Let's talk to our printer."



"YES, GENTLEMEN, the way to speed up work and eliminate confusion is with up-to-date printed forms. Forms that tell everyone exactly what to do, and then make sure it gets done right, and fast. This Hammermill book shows the kind you need. We can easily adapt them to your business. And so you'll know what you're getting, I'll put them on Hammermill Bond."

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THE MARKETS

When stock prices rebounded sharply the middle of this week there were many to say, "It's about time." Previously, the averages had climaxed a three-week decline by setting another new low since 1934. Prices, in fact, have lost two-thirds of the ground they so laboriously regained in the 1932-to-1937 bull market; at current levels the averages for the industrials are, by comparison with the 1929 top and 1932 low, about six-sevenths of the way down the scale, and are 17% under the fall-of-France low.

• **Who Holds the Bag**—Wall Street knows that the war will have to be financed and that much of the funds will be realized through corporate taxation. They know these taxes are inevitable for the war to be won. But they don't see any need to hold securities which tend to weaken in value as the corporations they represent show declining profits.

Second-grade railroad bonds, less vulnerable to taxes than stocks, remain near their 1941 tops as switching continues from equities to bargain-counter debt. Biggest losers in this week's stock market were the "blue chips." On Tuesday, for instance, 6,200 shares of American Telephone and Telegraph Co. (third most active stock for the day) were sold as it tumbled \$3.25 a share to \$102.75, the lowest since 1935 and \$30 below the year's high. Next day it slid off more than \$1 before rallying. Norfolk and Western, du Pont, and Allied Chemical at their lows were about 50, 40, and 30 points, respectively, below 1942 tops.

• **Awaiting New Issues**—U. S. Treasury bonds and notes fell off with announcement of the new plans for government borrowing. For the third consecutive week, the Federal Reserve Banks lent buying support to the Secretary Mor-

genthau's bond market. Some selling of short-terms was attributed to institutional desires to secure funds for subscription to the new issues to total \$2,000,000,000 this month and to buy the same amount in June.

This will be one of the largest governmental borrowings ever chalked up in a period of two months, but further new records likely will be made soon. To meet requirements of the 1943 budget, the Treasury will have to step up its borrowing to almost half again the present rate.

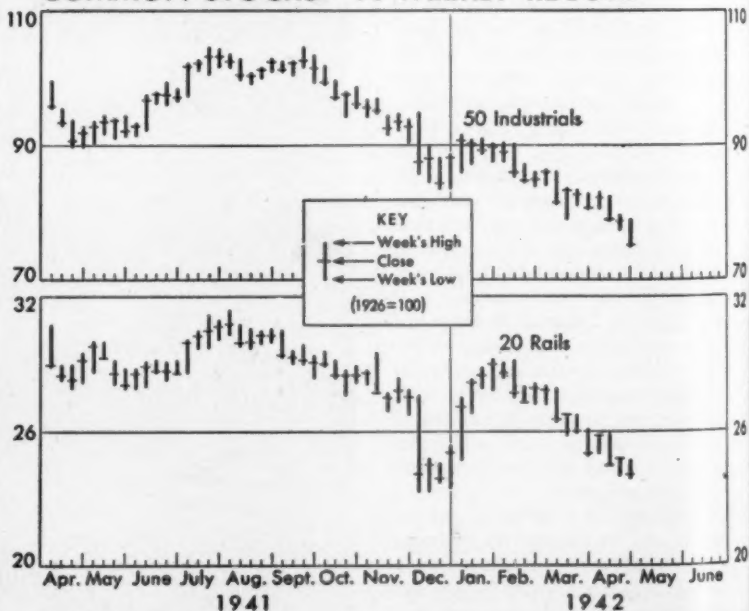
• **Four Billions a Month**—Latest estimates call for an increase in public debt of \$53,591,000,000 in the fiscal year beginning July 1. About \$4,764,000,000 of this will come from social security and other trust fund receipts, assuming that social security taxes are increased by \$2,000,000,000 as recommended. The balance, something over \$48,000,000,000 must be borrowed from the public. The Treasury's present goal for war savings bonds is \$1,000,000,000 a month, which would leave \$3,000,000,000 a month to be borrowed in the open market.

Security Price Averages

	This Week	Month	Year
	Week Ago	Ago	Ago
Stocks			
Industrial ...	75.2	78.8	92.0
Railroad	24.1	24.8	25.0
Utility	27.6	28.4	29.4
Bonds			
Industrial ...	107.5	107.8	106.0
Railroad	88.2	88.2	89.1
Utility	102.4	102.2	101.2
U. S. Govt. ...	110.1	110.5	111.3

Data: Standard & Poor's Corp. except for government bonds which are from the Federal Reserve Bank of New York.

COMMON STOCKS — A WEEKLY RECORD



Data: Standard & Poor's Corp.

© BUSINESS WEEK

with a loss of \$1,292,000 for the similar 1941 period.

Increased domestic sales overbalanced the effect of partial loss of export markets for International Business Machines, which earned \$2,807,000 in the first 1942 quarter, just slightly above the \$2,409,123 of a year ago. Excess-profits tax provisions rose to \$1,507,000, compared with \$460,000.

Although paying \$1,827,000 in federal taxes, almost eight times that of a year ago, Hazel-Atlas Glass Co. still had \$730,000 of net remaining for the quarter, compared with \$472,000 a year earlier. Atlas Powder didn't do so well. Net fell off to \$322,973 from \$440,282 in the first 1941 quarter. Checker Cab did even worse by showing a net loss against a profit of a year ago.

● **Looking Ahead**—Most of the companies are allowing sizable reserves, not only for expected taxes but also for various contingencies, in order to build up a bulwark against the anticipated postwar readjustment. This position was well stated on Wednesday at the annual meeting of International Nickel. President Robert C. Stanley said: "A sound procedure to guide this company would appear to be (1) to enter the postwar period with ample financial resources, (2) to avoid debt with the attendant danger of fixed charges in a possible subsequent period of depression, (3) to enter the postwar period with the lowest production costs attainable—this calls for plant efficiencies all along the line, which will aid our war effort and our future as well—(4) to retain the goodwill of consumers."

SAVE-THE-TIRES BANKING

Save-your-tires is one appeal made in a new personal loan service offered by the Security First National Bank, Los Angeles. The idea also meets the needs of thousands of war workers on night shifts.

In advertising, the customer is invited to telephone the bank's nearest branch, state how much money he wants, and next day he gets a form to fill out and bring to the bank. In the phone talk, which eliminates a trip to the bank, the loan men get data upon which to investigate credit. When the customer comes into the bank, remaining details are quickly settled, and the money handed over.

Save-your-tires is also the war advertising theme of the Union Bank & Trust Company, downtown Los Angeles, no branches. This bank already had many commercial depositors doing business by mail, especially outlying manufacturers. Complete forms for the transaction of business by mail are used. Since the service was played up in connection with tires, deposits have increased and patronage at the bank's free parking lot nearby has shown a decided drop.

This announcement appears merely as a matter of record as all of these Debentures have been sold.

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COMMODITIES

Coffee Freeze

WPB acts in recognition of fact that normal supplies just aren't arriving. Shipping space is the limiting factor.

When the War Production Board took a few spoonfuls out of the national coffee cup last week by restricting distribution to 75% of last year's comparable figures, it was more or less acknowledging restrictions which tight supplies had automatically placed on the trade.

● **Shipping**—Coffee is simply not reaching American wharves, and the prospect for bigger saucerfuls is tied tight to the limiting outlook for shipping space from Brazil and other sources. The move was no surprise to the coffee trade.

Coffee prices on the New York Coffee and Sugar Exchange have been static at ceiling levels since OPA issued its definitive price control order Dec. 29. On Apr. 23 the Exchange conceded the futility of expecting price variations for a while by suspending trade in new futures, reducing the coffee futures trade to liquidation of outstanding contracts.

● **At Retail Counter**—Down the line at the retail counter, the housewife will notice the cut in direct proportion to the impartiality with which distributors handle their retail outlets. The assumption is that, with minor deviations, the consumer will still get three out of four former cups through the frozen trade channels. Wholesalers who may have piled up a little coffee in anticipation of the cut are neatly boxed off at the same 75% of 1941 business that their unpaid competitors are heir to.

Normally visible and invisible supplies in this country add up to about four months' supply, or slightly above the 4,000,000 bags on hand Jan. 1. Bureau of Census figures for Mar. 31 were not out at the time WPB set the three-quarter rule for coffee, but it is suspected that WPB had a peek at the report and hastened to adjust trade to supplies.

● **Estimated Drop**—Guessing the first of the week indicated a drop of a million bags between Jan. 1 and Mar. 31, leaving the country with about a two-and-a-half-month supply of drinking Java.

Past volume of deliveries from South and Central America was not so much at issue as possible shrinkage in the future flow. Transportation note: Those Brazilian ships carrying 600,000 bags which were ordered into the nearest port by Brazil on Mar. 10 have not been unleashed yet.

THE TRADING POST

Steel for War

While saving steel will strike all men as a patriotic duty, the usefulness of various suggestions for saving steel is inevitably open to earnest debate. On suggestions of Detroit engineers for saving steel by the use of reinforced concrete construction, cited in a recent issue of Business Week, we have the following observations from V. G. Iden, secretary of the American Institute of Steel Construction:

Since Dec. 7 the United States has turned from a defense program to a war program. The construction program for defense was large, and speed was necessary. However, the construction program for war, according to the latest statement of the WPB, will be larger and still greater speed will be necessary. In the face of such a national emergency it is essential that we keep fundamental facts in mind and guard against intemperate charges or criticisms which might be condoned in times of peace. We have particular reference to the article in Business Week's issue of April 11 regarding the competition between steel construction and reinforced concrete construction. While those views were attributed to reputable firms in Detroit, Business Week nevertheless has the responsibility for giving them circulation.

One can have no reason to cast aspersions on the type of construction the Army, the Navy, and other agencies of our government executed during 1941. The American Institute of Steel Construction can point to over 2,700,000 tons of fabricated steel placed in bridges, buildings, factories and bases during that year. The record for economy, and the record for speed of erection achieved, is something that should cause our nation to be proud, and we doubt whether any other designs or other methods of erection could have improved upon what was then done.

The government insists that essential requirements this year will command every pound of steel that the industry can produce. However, if the volume of construction within the time limit set upon its total completion by the grand board of strategy is to be achieved during 1942, it will be necessary not only to use every pound of structural steel the industry can again produce this year, but also to use substitute materials where the type of structure made from them will conform to the desired purpose without too greatly increasing the cost. That, we are informed, is the program upon which the WPB is now engaged. I know that Business Week would not want to leave the impression that anything else is intended in the changes this year contemplated in the building programs of our government.

On Postwar Shipping

John F. Budd, publisher American Import and Export Bulletin, writes to point out a situation that arises from

the impact of war upon the shipping publications.

He expresses his natural concern as a publisher over the cessation of advertising by both foreign and American steamship operators. But then he goes on to indicate a broader aspect of the matter, one that is vested with a public as well as a private interest.

Of course, we appreciate that at the present time many ships have been taken over by the government for war purposes. However, this is only temporary. New merchant ships are being launched every day and when this war is over, the United States and Great Britain should be in possession of the major portion of all available tonnage of the world. Naturally, there will be keen competition for trade.

The English and Dutch are still advertising their freight services. Our foreign trade must be maintained during hostilities and plans and activities carried forth now for postwar trade. American steamship operators should continue to keep their contacts alive with the public. Where will we be when the war is over if this is neglected while our allies continue their contacts?

Admiral Land, Chairman of the United States Maritime Commission, has on several occasions expressed the opinion that shipping publications have done a splendid job in keeping the public and industry informed on the American Merchant Marine; also, that everything possible should be done to continue these publications so that they may be in a position to carry on at the end of the war.

Out of Step

The New York representative of a large machinery manufacturer pleads for better coordination between war purchase orders and priority rating certificates:

The defense program calls for production and more production and our company is operating 100% on defense work, which of necessity must carry priority rating certificates. The general procedure is that we receive customers' purchase orders, which orders usually have the following notation: "This is a defense order and preference rating certificate will follow with an A-1-A rating."

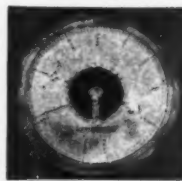
Then, when we inquire of the customer, after a few days or possibly a week, about the priority rating certificate, their customary reply is that they cannot get it as the proper authorities are very slow.

You would think that where production is so important the proper authorities would bend backwards to get this priority rating certificate to the customer without all the delay that occurs.

As an example, we recently received a sizable order from a large concern but didn't receive the priority rating certificate until three weeks later, which means that the customer's order had to be held here before it could be sent to our factory, as it had to wait for the certificate.

W.C.

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SERVICE
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THE TREND

PUTTING THE FREEZE IN PERSPECTIVE

President Roosevelt has taken the big plunge—toward control of the nation's price structure. But he did not go all the way and adopt the Bernard M. Baruch formula: Freeze all prices and wages at once, and then police them. Such a forthright program would not set well with the farm block or labor-leaning congressmen. So, in drawing up his price plan, the President mixed politics with his economics.

Instead of demanding outright freezing of agricultural prices, Mr. Roosevelt merely asked Congress for legislation to permit placing ceilings on agricultural commodities when they reach parity. That means that farm prices are still fluid—they still can move. And if the goods the farmer customarily buys go up in price, then farm prices likewise can go up. As for wages, the President declared it to be the policy of the government to keep them "stabilized;" but he left the execution of that policy to the National Labor Relations Board. He has yet to issue a formal directive: Keep wages where they are.

• **The net result** is that two major sectors of our economy—farm prices and wage rates—can still exert an upward pressure on the general price structure, despite Mr. Henderson's over-all ceilings. And that spells trouble. If wages go up, then costs all along the line will go up, and manufacturers, wholesalers, and retailers in self-protection will want to boost prices. Similarly, if farm prices advance, they will push up foodstuff prices all along the line. Thus, the Roosevelt plan—underneath—has explosive possibilities.

That, however, does not mean that the plan won't work. But it does impose a tremendous burden upon the Office of Price Administration. For, indirectly, it becomes the responsibility of Mr. Henderson to keep workers from demanding higher wages and to see that farm parity levels do not rise.

• **Consider the ingenious construction** of the Roosevelt-Henderson scheme of price control. Theoretically, wages are free: workers can appeal to the Labor Board for increased rates. Theoretically, too, farm prices are free: they can go up if the cost of goods the farmer buys advances. Yet, if Mr. Henderson is able—by careful policing of the overall price structure—to keep the general cost of living down, then workers will not be able to argue before the Labor Board that increased living costs justify wage boosts. Nor will farm parity prices rise either.

That, then, is the economic strategy that politics forced upon the President: You prevent the cost of living from rising, and thereby, indirectly, you freeze the wage and farm-price structure. And that explains why, in his price order, Henderson laid so much stress on "cost of living commodities." Their retail price ceilings must be plainly visible to the public, so that housewives can readily deter-

mine which stores offer the best buys. Such comparisons, in a competitive market, may tend to exert a down-pull on prices, which is precisely what Mr. Henderson is aiming at.

However, it is well to note that this ingenious cost-of-living price-control scheme is only part of a broad attack on inflation. Remember this: The war effort creates a tremendous amount of purchasing power. At the same time it cuts down the production of civilian goods. That builds up an almost overpowering demand for merchandise that isn't there. And excess purchasing power—the "hot money" of wartime—burns holes in consumers' pockets. But as yet, President Roosevelt has offered no formal plan to siphon this excess purchasing power off the market. Consumer abstinence is left on a voluntary-savings, or catch-as-catch-can, basis (BW—Mar.18'42,p84).

• **And that toughens** Henderson's task. What is quite apt to happen is this: As supplies of merchandise gradually run out, some manufacturers, wholesalers, and retailers will try to hoard what they have in stock. They'll have to be "induced" to sell. So hidden bonuses will creep into the price structure; and these bonuses will be "passed along" to the ultimate consumer in the form of concealed price rises. In effect, an economic tug-of-war will take place. On the one side, the posting of price ceilings tends to pull prices down; but on the other side "hot money" tends to pull prices up.

That tug-of-war has occurred in every country that has ever attempted price control, as individual cupidity for goods inevitably spills over into "black markets." Despite awesome penalties, illegal markets exist in Germany, Italy, and Japan. And it is only realistic to recognize the probability that black markets will spring up in the United States, where the policing job is the vastest ever undertaken anywhere. For in this country we have, by all odds, the greatest supply of consumer goods in the world, hence the greatest number of items to be "ceilinged" and watched.

• **All of which suggests** that the Office of Price Administration may develop into the most important agency of economic control in the country—more important even than the War Production Board. But it also suggests that ultimately, to relieve the pressure on Henderson, the President will have to tackle the "hot money" problem with a systematic forced-savings program.

In the meantime, the business man will do well to keep a close weather eye on the cost-of-living index. For it is the basic indicator of whether wages and farm prices can be kept under control, whether the Roosevelt price-freeze program can be made to work.

The Editors of Business Week

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